THE

# McGILL

# University Calendar,

AND

# EXAMINATION PAPERS.

# 1873-74.

CORRECTED TO JUNE, 1873.




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# ANNUAL CALENDAR

OF

# McGILL COLLEGE

AND

# UNIVERSITY,

MONTREAL.

FOUNDED BY BEQUEST OF THE HON. JAMES McGILL, IN 1811;
ERECTED INTO A UNIVERSITY BY ROYAL CHARTER
IN 1821; AND RE-ORGANIZED BY AN
AMENDED CHARTER IN 1852.

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## SESSION OF 1873-4.

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MONTREAL:
PRINTED FOR THE UNIVERSITY BY J. C. BECKET, ST. JAMES ST.

1873

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## ENGLISH HISTORY.

A course of ten lectures on early English History will be delivered in the Session of 1873-4, by Professor Goldwin Smith, M.A.—beginning in October. These lectures will be free to Undergraduates in Arts and in the Department of Applied Science; and two Prizes will be offered for competition, in the Examinations at the end of the course. Gentlemen not being Undergraduates will be admitted on payment of a fee.

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### ERRATA.

On pages 13 and 14, the Classical subjects for the Intermediate and B. A. Ordinary Examinations for 1874, should read as follows:

*For Intermediate.*

GREEK.—Herodotus; Book IX.

LATIN.—Horace; Epistles, Book I.

*For B. A. Ordinary.*

GREEK.—Sophocles; The Electra. Demosthenes; The Olynthiacs.

LATIN.—Tacitus; The Annals, Book I. Juvenal; Satires VIII. and X.

BENEFACTORS OF

# McGill University, Montreal.

## I. ORIGINAL ENDOWMENT, 1811.

THE HONOURABLE JAMES McGILL, by his last Will and Testament, under date 8th January, 1811, bequeathed the Estate of Burnside, situated near the City of Montreal, and containing forty-seven acres of land, with the Manor House and Buildings thereon erected, and also the sum of ten thousand pounds in money, unto the "Royal Institution for the Advancement of Learning," constituted by Act of Parliament in the Forty-first Year of the Reign of His Majesty, King George the Third, to erect and establish a University or College for the purpose of Education, and the advancement of learning in the Province of Lower Canada, with a competent number of Professors and Teachers to render such Establishment effectual and beneficial for the purposes intended, requiring that one of the Colleges to be comprised in the said University, should be named and perpetually be known and distinguished by the appellation of "McGill College."

The value of the above mentioned property was estimated at the date of the bequest at - - - - - - - - $120,000

## II. WILLIAM MOLSON HALL.

In 1861 the "William Molson Hall," being the west wing of the McGill College buildings, with the Museum Rooms, and the Chemical Laboratory and Class Rooms, was erected through the munificent Donation of the founder whose name it bears.

## III. ENDOWED CHAIRS.

THE MOLSON CHAIR OF ENGLISH LANGUAGE AND LITERATURE, in 1856, by the Honourable John Molson, Thomas Molson, Esq., and William Molson, Esq.—$20,000.

THE PETER REDPATH CHAIR OF NATURAL PHILOSOPHY, in 1871, by Peter Redpath, Esq.—$20,000.

THE LOGAN CHAIR OF GEOLOGY, in 1871, by Sir W. E. Logan, LL.D., F.R.S. and Hart Logan, Esq.—$20,000.

THE JOHN FROTHINGHAM CHAIR OF MENTAL AND MORAL PHILOSOPHY, in 1873, by Miss Louisa Frothingham,—$20,000.

## IV. EXHIBITIONS AND SCHOLARSHIPS IN ARTS.

THE JANE REDPATH EXHIBITION, $100 annually,—founded in 1868 by Mrs Redpath of Terrace Bank, Montreal, and endowed with the sum of $1667.

THE GOVERNORS' SCHOLARSHIP of $100 to $120 annually—founded by subscription of members of the Board of Governors in 1869.

THE McDONALD SCHOLARSHIPS AND EXHIBITIONS, 10 in number—founded in 1871, by William C. McDonald, Esq.—Annual value, $1,250.

THE CHARLES ALEXANDER SCHOLARSHIP for Classics,—endowed in 1871 with the sum of $2,000, by C. Alexander Esq.

THE TAYLOR SCHOLARSHIP—founded in 1871, by T. M. Taylor Esq.—Annual value $100.

THE SCOTT EXHIBITION,—founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and endowed in 1872 with the sum of $1100 subscribed by members of the Society, and other citizens of Montreal. The Exhibition is given annually in the Department of Practical and applied Science.

## V. ENDOWMENTS OF MEDALS.

In 1856 Henry Chapman, Esq., founded a gold medal to be named the "Chapman gold Medal," to be given annually in the graduating class in Arts.

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In 1860 the sum of £200 presented to the College by H. R. H. the Prince of Wales, was applied to the foundation of a Gold Medal, to be called the "Prince of Wales Gold Medal," which is given in the graduating class for Honour Studies in Mental and Moral Philosophy.

In 1864 the "Anne Molson Gold Medal," was founded and endowed by Mrs. John Molson of Belmont Hall, Montreal, for an Honour Course in Mathematics and Physical Science.

In the same year the "Shakespeare Gold Medal," for an Honour Course to comprise and include the works of Shakespeare and the Literature of England from his time to the time of Addison, both inclusive, and such other accessory subjects as the Corporation may from time to time appoint,—was founded and endowed by citizens of Montreal, on occasion of the three hundredth anniversary of the birth of Shakespeare.

In the same year the "Logan Gold Medal;" for an Honour Course in Geology and Natural Science, was founded and endowed by Sir William Edmund Logan, LL.D., F. R. S., F. G. S., &c.

In 1865 the "Elizabeth Torrance Gold Medal," was founded and endowed by John Torrance Esq., of St. Antoine Hall, Montreal, in memory of the late Mrs. John Torrance, for the best student in the graduating class in law, and more especially for the highest proficiency in Roman Law.

In the same year, the "Holmes Gold Medal," was founded by the Medical Faculty, as a memorial of the late Andrew Holmes, Esquire, M D., LL.D., late Dean of the Faculty of Medicine, to be given to the best student in the graduating class in Medicine, who shall undergo a special examination in all the branches, whether Primary or Final.

## VI. SUBSCRIPTIONS TO THE GENERAL ENDOWMENT.

### 1856.

| | | | |
|---|---|---|---|
| John Gordon McKenzie, Esq. | $2000 | Honourable John Rose | 600 |
| Ira Gould, Esq. | 2000 | Charles Alexander, Esq. | 600 |
| John Frothingham, Esq. | 2000 | Moses E. David, Esq. | 600 |
| John Torrance, Esq. | 2000 | Wm. Carter, Esq. | 600 |
| James B. Greenshields, Esq. | 1200 | Thomas Paton, Esq. | 600 |
| William Busby Lambe, Esq. | 1200 | Wm. Workman, Esq. | 600 |
| Sir George Simpson, Knight. | 1000 | Honourable A. T. Galt | 600 |
| Henry Thomas, Esq. | 1000 | Honourable Luther H. Holton | 600 |
| John Redpath, Esq. | 1000 | Henry Lyman, Esq. | 600 |
| James McDougall, Esq. | 1000 | David Torrance, Esq. | 600 |
| James Torrance, Esq. | 1000 | Edwin Atwater, Esq. | 600 |
| Honourable James Ferrier | 1000 | Theodore Hart, Esq. | 600 |
| John Smith, Esq. | 1000 | William Forsyth Grant, Esq. | 600 |
| Harrison Stephens, Esq. | 1000 | Robert Campbell, Esq. | 600 |
| James Mitchell, Esq. | 1000 | Alfred Savage, Esq. | 600 |
| Henry Chapman, Esq. | 600 | James Ferrier, Jr., Esq. | 600 |
| Honourable Peter McGill | 600 | William Stephens, Esq, | 600 |
| John James Day, Esq. | 600 | N. S. Whitney, Esq. | 600 |
| Thomas Brown Anderson, Esq. | 600 | William Dow, Esq. | 600 |
| Peter Redpath, Esq. | 600 | William Watson, Esq. | 600 |
| Thomas M. Taylor, Esq. | 600 | Edward Major, Esq. | 600 |
| Joseph McKay, Esq. | 600 | Honourable Charles Dewey Day | 200 |
| Donald Lorn McDougall, Esq. | 600 | John R. Esdaile, Esq. | 200 |

### 1871.

| | | | |
|---|---|---|---|
| William Molson, Esq. | $5.000 | W. Notman, Esq. | 600 |
| William C. McDonald, Esq. | 5.000 | T. W. Ritchie, Esq. | 600 |
| Thomas Workman, Esq. | 5.000 | A. & W. Robertson, Esqs. | 600 |
| John Frothingham, Esq. | 5.000 | Messrs, Sinclair, Jack & Co. | 250 |
| J. H. R. Molson, Esq. | 2,000 | John Reddy, Esq. M. D. | 100 |
| Honourable F. W. Torrance. | 1,000 | Wm. Lunn, Esq. | 100 |
| G. W. Campbell, Esq. M. D. | 1,000 | Kenneth Campbell, Esq. | 100 |
| John McLennan, Esq. | 1,000 | R. A. Ramsay, Esq. | 100 |
| B. Gibb, Esq. | 600 | William Rae, Esq. | 50 |

## VII. ENDOWMENT FOR DEPARTMENT OF PRACTICAL SCIENCE: 1871.

| | |
|---|---|
| Daniel Torrance, Esq., | $5000 |
| George Moffatt, Esq. | 1000 |
| Charles J. Brydges, Esq. | 1000 |
| Robert J. Reekie, Esq. | 1000 |
| Hon. James Ferrier (per annum for 7 years) | 100 |
| Donald Ross, Esq., (per annum for 5 years), | 50 |
| Peter Redpath, Esq., do. | 400 |
| John H. R. Molson, Esq., do. | 400 |
| George H. Frothingham, Esq., do. | 400 |
| T. James Claxton, Esq., (per annum), | 100 |
| Charles Gibb, B. A. Donation for Apparatus | 50 |

## VIII. SUBSCRIPTIONS FOR SPECIAL OBJECTS.

*Subscriptions for the purchase of Philosophical Apparatus*, 1867.

| | | | |
|---|---|---|---|
| William Molson, Esq., | $500 | John Frothingham, Esq., | 100 |
| John H. R. Molson, Esq., | 500 | David Torrance, Esq. | 100 |
| Peter Redpath, Esq., | 500 | | |
| George Moffatt, Esq., | 250 | | $2050 |
| Andrew Robertson, Esq., | 100 | | |

*Subscriptions for the erection of a Fire-proof Building for the Carpenter Collection of Shells*, 1868.

| | | | |
|---|---|---|---|
| Peter Redpath, Esq., | $500 | Wm. Dow, Esq., | 100 |
| William Molson, Esq., | 500 | Thomas Rimmer, Esq., | 100 |
| Harrison Stephens, Esq. | 100 | Andrew Robertson, Esq., | 100 |
| Robert J Reekie, Esq., | 100 | Mrs. Redpath, | 100 |
| John H. R. Molson, Esq., | 100 | Benaiah Gibb, Esq., | 50 |
| Sir William E. Logan, F. R. S. | 100 | Honourable John Rose, | 30 |
| John Molson, Esq. | 100 | | $2,180 |
| Thomas Workman, Esq., M. P. | 100 | | |
| George H. Frothingham, Esq., | 100 | | |

*Subscriptions for the Erection of the Lodge and Gates.*

| | | | |
|---|---|---|---|
| William Molson, Esq., | $100 | James A. Mathewson, Esq., | 100 |
| John H. R. Molson, Esq., | 100 | Peter Redpath, Esq., | 100 |
| William Workman, Esq., | 100 | G. H. Frothingham, Esq., | 100 |
| Joseph Tiffin, Jr., Esq., | 100 | G. D. Ferrier, Esq., | 100 |
| Thos. J. Claxton, Esq., | 100 | Geo. W. Warner, Esq., | 100 |
| James Linton, Esq., | 100 | John Smith, Esq., | 100 |
| William McDougall, Esq., | 100 | Charles Alexander, Esq., | 100 |
| Charles J. Brydges, Esq., | 100 | J. E. Evans, Esq., | 100 |
| George Drummond, Esq., | 100 | Henry Lyman, Esq., | 50 |
| Thomas Rimmer, Enq , | 100 | | $2050.00 |
| William Dow, Esq., | 100 | | |
| John Frothingham, Esq., | 100 | | |

*Library and Museum Funds and Subscriptions.*

| | | | |
|---|---|---|---|
| Mrs. G. H. Frothingham, for the arrangement of Dr. Carpenter's Collection of Mazatlan Shells | $233 | Wm. Molson, Esq., for Library Fund. | $4,000 |
| T. J. Claxton, Esq. £50 Sterling for addition to the Museum. | $250 | Wm. Molson, Esq., for Museum Fund. | $2000 |
| | | John Thorburn, M. A., for the Library. | $90 |

Hon. C. Dunkin, M.P., in aid of the chair of Practical Chemistry . . $1,200
Principal Dawson, in aid of the same . . $1,200
P. Redpath, Esq., do do $266

T. M. Thomson, Esq., $250 for two Exhibitions in September, 1871, $200 for two exhibitions ln 1872 . . $450
Rev. Colin C. Stewart, for the "Stewart Prize in Hebrew." $20, annually.

## IX. ENDOWMENT, HELD IN TRUST BY THE BOARD OF ROYAL INSTITUTION.

The "Hannah Willard Lyman Memorial Fund" contributed by subscription of former pupils of Miss Lyman, and invested as a permanent Endowment, to furnish annually a Scholarship or Prize in a College for Women affiliated to the University, or in Classes for the Higher Education of Women approved by the University. The amount of the fund is at present $1007.

# ACADEMICAL YEAR, 1873-4.

## SEPTEMBER 1873.

| | | |
|---|---|---|
| 1 | Monday | Session of Normal School commences. |
| 2 | Tuesday | |
| 3 | Wednesday | |
| 4 | Thursday | |
| 5 | Friday | |
| 6 | Saturday | |
| 7 | SUNDAY | |
| 8 | Monday | |
| 9 | Tuesday | |
| 10 | Wednesday | |
| 11 | Thursday | |
| 12 | Friday | |
| 13 | Saturday | Meeting of Faculty of Arts. |
| 14 | SUNDAY | |
| 15 | Monday | Matriculation and Supplemental Examinations in Classics. Exhibition and Scholarship Examinations. |
| 16 | Tuesday | Mat. and Supp Ex'ns in Mathematics Exhibition and Scholarship Ex'ns. |
| 17 | Wednesday | Matric. and Suppl. Ex'ns in English, Logic, Mental and Moral Philos: Exhibition and Scholarship Ex'n. |
| 18 | Thursday | Suppl. and Matric. Ex'mns in Modern Languages. Suppl. Examin. in Nat Science. Exhibition and Scholarship Examination. |
| 19 | Friday | Meeting of Faculty of Arts. Lectures in Arts commence. |
| 20 | Saturday | |
| 21 | SUNDAY | |
| 22 | Monday | |
| 23 | Tuesday | |
| 24 | Wednesday | |
| 25 | Thursday | |
| 26 | Friday | |
| 27 | Saturday | |
| 28 | SUNDAY | |
| 29 | Monday | Meeting of Faculty of Arts. |
| 30 | Tuesday | |

## OCTOBER 1873.

| | | |
|---|---|---|
| 1 | Wednesday | Session of Law and Medical Faculties commences. |
| 2 | Thursday | |
| 3 | Friday | |
| 4 | Saturday | Matriculation Examination in Medicine |
| 5 | SUNDAY | |
| 6 | Monday | *Founder's Birth-day.* |
| 7 | Tuesday | Meeting of Faculty of Law. |
| 8 | Wednesday | |
| 9 | Thursday | |
| 10 | Friday | *The William Molson Hall* opened 1862. |
| 11 | Saturday | |
| 12 | SUNDAY | |
| 13 | Monday | Meeting of Faculty of Arts. |
| 14 | Tuesday | |
| 15 | Wednesday | |
| 16 | Thursday | |
| 17 | Friday | |
| 18 | Saturday | |
| 19 | SUNDAY | |
| 20 | Monday | |
| 21 | Tuesday | |
| 22 | Wednesday | Regular Meeting of Corporation. School Examiners appointed. Reports on Scholarships and Exhibitions. Accounts audited. |
| 23 | Thursday | |
| 24 | Friday | |
| 25 | Saturday | |
| 26 | SUNDAY | |
| 27 | Monday | Meeting of Faculty of Arts. |
| 28 | Tuesday | |
| 29 | Wednesday | |
| 30 | Thursday | |
| 31 | Friday | |

## NOVEMBER 1873.

| | | |
|---|---|---|
| 1 | Saturday | |
| 2 | SUNDAY | |
| 3 | Monday | |
| 4 | Tuesday | |
| 5 | Wednes | |
| 6 | Thursday | |
| 7 | Friday | |
| 8 | Saturday | |
| 9 | SUNDAY | |
| 10 | Monday | Meeting of Faculty of Arts. |
| 11 | Tuesday | Annual University Lecture. |
| 12 | Wednes | |
| 13 | Thursday | |
| 14 | Friday | |
| 15 | Saturday | |
| 16 | SUNDAY | |
| 17 | Monday | |
| 18 | Tuesday | Meeting of Faculty of Law. |
| 19 | Wednes | |
| 10 | Thursday | |
| 21 | Friday | |
| 22 | Saturday | |
| 23 | SUNDAY | |
| 24 | Monday | Meeting of Faculty of Arts. |
| 25 | Tuesday | |
| 26 | Wednes | |
| 27 | Thursday | |
| 28 | Friday | |
| 29 | Saturday | |
| 30 | SUNDAY | |

## DECEMBER 1873.

| | | |
|---|---|---|
| 1 | Monday | |
| 2 | Tuesday | |
| 3 | Wednes | |
| 4 | Thursday | |
| 5 | Friday | |
| 6 | Saturday | |
| 7 | SUNDAY | |
| 8 | Monday | Meeting of Faculty of Arts. |
| 9 | Tuesday | Meeting of Faculty of Law. |
| 10 | Wednes | Lectures in Arts terminate. |
| 11 | Thursday | |
| 12 | Friday | Examination in Natural Philos. 3rd and 4th Years. In Classics, 1st and 2nd Years. |
| 13 | Saturday | |
| 14 | SUNDAY | |
| 15 | Monday | Examination in Classics, 3d and 4th Years, In Math. 1st and 2nd Year |
| 16 | Tuesday | Examination in Natural Science. |
| 17 | Wednes | |
| 18 | Thursday | |
| 19 | Friday | Examination in English, Mental and Moral Philosophy and Hebrew. |
| 20 | Saturday | Examination in French and German. |
| 21 | SUNDAY | |
| 22 | Monday | Christmas Vacation commences. |
| 23 | Tuesday | |
| 24 | Wednes | |
| 25 | Thursday | Christmas day. |
| 26 | Friday | |
| 27 | Saturday | |
| 28 | SUNDAY | |
| 29 | Monday | |
| 30 | Tuesday | |
| 31 | Wednes | |

## JANUARY 1874.

| | | |
|---|---|---|
| 1 | Thursday | |
| 2 | Friday | |
| 3 | Saturday | Christmas Vacation ends. |
| 4 | SUNDAY | |
| 5 | Monday | Meeting of Faculty of Arts. Lectures in Arts. Law and Medicine re-commence. |
| 6 | Tuesday | |
| 7 | Wednesday | |
| 8 | Thursday | |
| 9 | Friday | |
| 10 | Saturday | |
| 11 | SUNDAY | |
| 12 | Monday | |
| 13 | Tuesday | |
| 14 | Wednesday | |
| 15 | Thursday | |
| 16 | Friday | |
| 17 | Saturday | |
| 18 | SUNDAY | |
| 19 | Mouday | Meeting of Faculty of Arts. |
| 20 | Tuesday | Meeting Faculty of Law. |
| 21 | Wednesday | |
| 22 | Thursday | |
| 23 | Friday | |
| 24 | Saturday | |
| 25 | SUNDAY | |
| 26 | Monday | |
| 27 | Tuesday | |
| 28 | Wednesday | Regular Meeting of Corporation. Examiners appointed. Annual report to Visitor. |
| 29 | Thursday | |
| 30 | Friday | |
| 31 | Saturday | |

## FEBRUARY 1874.

| | | |
|---|---|---|
| 1 | SUNDAY | |
| 2 | Monday | Meeting of Faculty of Arts. |
| 3 | Tuesday | |
| 4 | Wednesday | |
| 5 | Thursday | |
| 6 | Friday | |
| 7 | Saturday | |
| 8 | SUNDAY | |
| 9 | Monday | |
| 10 | Tuesday | |
| 11 | Wednesday | |
| 12 | Thursday | Meeting of Examiners. |
| 13 | Friday | |
| 14 | Saturday | |
| 15 | SUNDAY | |
| 16 | Monday | Meeting of Faculty of Arts. |
| 17 | Tuesday | Meeting of Faculty of Law. |
| 18 | Wednesday | —No lectures. |
| 19 | Thursday | |
| 20 | Friday | |
| 21 | Saturday | |
| 22 | SUNDAY | |
| 23 | Monday | |
| 24 | Tuesday | |
| 25 | Wednesday | |
| 26 | Thursday | |
| 27 | Friday | Supplemental Examinations. |
| 28 | Saturday | |

## MARCH 1874.

| | | |
|---|---|---|
| 1 | SUNDAY | |
| 2 | Monday | Meeting of Faculty of Arts. |
| 3 | Tuesday | Theses for Degree of M.D. and B.C.L. to be sent in to Deans of Faculties. |
| 4 | Wednesday | |
| 5 | Thursday | |
| 6 | Friday | |
| 7 | Saturday | |
| 8 | SUNDAY | |
| 9 | Monday | School Examinations of the University. |
| 10 | Tuesday | |
| 11 | Wednesday | |
| 12 | Thursday | |
| 13 | Friday | |
| 14 | Saturday | |
| 15 | SUNDAY | |
| 16 | Monday | Meeting of Faculty of Arts. |
| 17 | Tuesday | Meeting of Faculty of Law. |
| 18 | Wednesday | Lectures in Medicine and Law terminate. |
| 19 | Thursday | |
| 20 | Friday | |
| 21 | Saturday | Primary Examinations for Degree in Medicine. |
| 22 | SUNDAY | |
| 23 | Monday | |
| 24 | Tuesday | |
| 25 | Wednesday | Final Exam'n for Degree in Medicine. |
| 26 | Thursday | |
| 27 | Friday | |
| 28 | Saturday | Matriculation Examination in Medicine |
| 29 | SUNDAY | |
| 30 | Monday | Meeting of Convocation for conferring Degrees in Law and Medicine. Lectures in Arts terminate. Meeting of Faculty of Arts. Reports of attendance on Lectures. |
| 31 | Tuesday | B. A. Honour Examinations. |

## APRIL 1874.

| | | |
|---|---|---|
| 1 | Wednes | Ordinary Examiantions: 3rd and 4th Years in Natural Philosophy. and 2nd Years in Classics. |
| 2 | Thursday | |
| 3 | Friday | Good Friday - Easter Vacation commences. |
| 4 | Saturday | |
| 5 | SUNDAY | Easter-day. |
| 6 | Monday | |
| 7 | Tuesday | Easter Vacation ends. |
| 8 | Wednes | Ordinary Examinations, 3rd and 4th Years in Classics; 1st and 2nd Years in Mathematics. |
| 9 | Thursday | |
| 10 | Friday | Examinations in Applied Science Department. Theses for Degree of M. A., to be sent in to Dean. |
| 11 | Saturday | |
| 12 | SUNDAY | |
| 13 | Monday | Meeting of Faculty of Arts. Ordinary Examinations in English Literature, Logic, Mental and Moral Philos. |
| 14 | Tuesday | |
| 15 | Wednesday | Ordinary Examinations in Natural Science and Chemistry. |
| 16 | Thursday | Ordinary Examinations in French and Hebrew. |
| 17 | Friday | B. A. and other Honour Examinations |
| 18 | Saturday | |
| 19 | SUNDAY | |
| 20 | Monday | Ordinary Exam. in German and B. A Honour Examination. |
| 21 | Tuesday | Meeting of Examiners. |
| 22 | Wednesday | Regular Meeting of Corporation. |
| 23 | Thursday | |
| 24 | Friday | B. A. and other Honour Examinations |
| 25 | Saturday | |
| 26 | SUNDAY | |
| 27 | Monday | B. A. Honour Examinations (Viva Voce. |
| 28 | Tuesday | Meeting of Examiners. |
| 29 | Wednesday | Declaration of results of Examinations. |
| 30 | Thursday | Annual Meeting of Convocation. |

## MAY 1874.

| | | |
|---|---|---|
| 1 | Friday | |
| 2 | Saturday | |
| 3 | SUNDAY | |
| 4 | Monday | |
| 5 | Tuesday | |
| 6 | Wednesday | |
| 7 | Thursday | |
| 8 | Friday | |
| 9 | Saturday | |
| 10 | SUNDAY | |
| 11 | Monday | |
| 12 | Tuesday | |
| 13 | Wednesday | |
| 14 | Thursday | |
| 15 | Friday | |
| 16 | Saturday | |
| 17 | SUNDAY | |
| 18 | Monday | |
| 19 | Tuesday | |
| 20 | Wednesday | |
| 21 | Thursday | |
| 22 | Friday | |
| 23 | Saturday | |
| 24 | SUNDAY | Queen's Birth-day. |
| 25 | Monday | |
| 26 | Tuesday | |
| 27 | Wednesday | |
| 28 | Thursday | |
| 29 | Friday | |
| 30 | Saturday | |
| 31 | SUNDAY | |

## JUNE 1874.

| | | |
|---|---|---|
| 1 | Monday | Exam'ns in Normal School commence |
| 2 | Tuesday | |
| 3 | Wednesday | |
| 4 | Thursday | |
| 5 | Friday | |
| 6 | Saturday | |
| 7 | SUNDAY | |
| 8 | Monday | |
| 9 | Tuesday | |
| 10 | Wednesday | |
| 11 | Thursday | |
| 12 | Friday | |
| 13 | Saturday | |
| 14 | SUNDAY | |
| 15 | Monday | |
| 16 | Tuesday | |
| 17 | Wednesday | |
| 18 | Thursday | |
| 19 | Friday | |
| 20 | Saturday | |
| 21 | SUNDAY | |
| 22 | Monday | |
| 23 | Tuesday | |
| 24 | Wednesday | Regular Meeting of Corporation. Report of Normal School. |
| 25 | Thursday | |
| 26 | Friday | Normal School closes for Summer Vacation. |
| 27 | Saturday | |
| 28 | SUNDAY | |
| 29 | Monday | |
| 30 | Tuesday | |

## JULY 1874.

| | | |
|---|---|---|
| 1 | Wednesday | |
| 2 | Thursday | |
| 3 | Friday | |
| 4 | Saturday | |
| 5 | SUNDAY | |
| 6 | Monday | |
| 7 | Tuesday | |
| 8 | Wednesday | |
| 9 | Thursday | |
| 10 | Friday | |
| 11 | Saturday | |
| 12 | SUNDAY | |
| 13 | Monday | |
| 14 | Tuesday | |
| 15 | Wednesday | |
| 16 | Thursday | |
| 17 | Friday | |
| 18 | Saturday | |
| 19 | SUNDAY | |
| 20 | Monday | |
| 21 | Tuesday | |
| 22 | Wednesday | |
| 23 | Thursday | |
| 24 | Friday | |
| 25 | Saturday | |
| 26 | SUNDAY | |
| 27 | Monday | |
| 28 | Tuesday | |
| 29 | Wednesday | |
| 30 | Thursday | |
| 31 | Friday | |

## AUGUST 1874.

| | | |
|---|---|---|
| 1 | Saturday | |
| 2 | SUNDAY | |
| 3 | Monday | |
| 4 | Tuesday | |
| 5 | Wednesday | |
| 6 | Thursday | |
| 7 | Friday | |
| 8 | Saturday | |
| 9 | SUNDAY | |
| 10 | Monday | |
| 11 | Tuesday | |
| 12 | Wednesday | |
| 13 | Thursday | |
| 14 | Friday | |
| 15 | Saturday | |
| 16 | SUNDAY | |
| 17 | Monday | |
| 18 | Tuesday | |
| 19 | Wednesday | |
| 20 | Thursday | |
| 21 | Friday | |
| 22 | Saturday | |
| 23 | SUNDAY | |
| 24 | Monday | |
| 25 | Tuesday | |
| 26 | Wednesday | |
| 27 | Thursday | |
| 28 | Friday | |
| 29 | Saturday | |
| 30 | SUNDAY | |
| 31 | Monday | |

# McGill University, Montreal.

The Forty-first Session of this University, being the Twenty-first under the amended charter, will commence in the Autumn of 1875.

By Virtue of the Royal Charter, granted in 1821 and amended in 1852, the Governors, Principal and Fellows of McGill College, constitute the Corporation of the University; and, under the statutes framed by the Board of Governors, with approval of the Visitor, have the power of granting degrees in all the Arts and Faculties, in McGill College, and in Colleges affiliated thereto.

The Statutes and Regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greatest possible facilities for the attainment of mental culture and professional training. In its religious character the University is Protestant, but not denominational; and while all possible attention will be given to the character and conduct of students, no interference with their peculiar religious views will be sanctioned.

## I. McGILL COLLEGE.

The Faculty of Arts.—The complete course of study for the Degree of B. A. extends over four Sessions, of eight months each; and includes Classics and Mathematics, Experimental Physics, English Literature, Logic, Mental and Moral Science, Natural Science, and one Modern Language, or Hebrew; all of which subjects are imperative in the first three years of the Course; but in the fourth year options are allowed in favour of the Honour Courses in Classics, Mathematics, Mental and Moral Science, Natural Science, and English Literature. Certain exemptions are also allowed to Professional Students.

The Department of Practical and Applied Science in the Faculty of Arts provides professional instruction in Civil Engineering, Mining Engineering and Assaying, and Practical Chemistry, leading to the Degree of Bachelor of Applied Science.

The Faculty of Medicine.—The complete course of study in Medicine extends over four Sessions, of six months each, and leads to the degree of M. D., C. M

The Faculty of Law.—The complete course in Law extends over three Sessions of six months each, and leads to the degrees of B. C. L. and D. C. L.

## II. AFFILIATED COLLEGES.

Students of these Colleges are matriculated in the University, and may pursue their course of study wholly in the affiliated College, or in part therein and in part in McGill College, and may come up to the University Examinations on the same terms with the Students of McGill College.

Morrin College, *Quebec.*—Is affiliated in so far as regards degrees in Arts and Law.
[Detailed information may be obtained from Rev. John Cook, D.D., Principal.]

St. Francis College, *Richmond, P. Q.*—Is affiliated in so far as regards degrees in Arts.
[Detailed information may be obtained from C. W. Parkin, Esq., Principal.]

## III. AFFILIATED THEOLOGICAL COLLEGES.

The Congregational College of British North America, *Montreal.*

The Presbyterian College of Montreal, in connection with the Canada Presbyterian Church.

Affiliated Theological Colleges have the right of obtaining for their Students the advantage, in whole or in part, of the course of study in Arts, with such facilities in regard to exemptions as may be agreed on.

## IV. AFFILIATED SCHOOLS.

The McGill Normal School provides the training requisite for Teachers of Elementary and Model Schools and Academies. Teachers trained in this School are entitled to Provincial diplomas.

The Model Schools of the McGill Normal School are Elementary Schools, divided into a Boy's Department, Girl's Department, and Primary School.

# GOVERNING BODY OF THE UNIVERSITY.

## VISITOR:—

His Excellency The Right Hon. The Earl of Dufferin, Viscount and Baron Clandeboye, Governor General of Canada, &c.

## GOVERNORS:—

*(Being the Members of the Royal Institution for the Advancement of Learning.)*

The Hon. Charles Dewey Day, LL.D., D.C.L. *President and Chancellor of the University.*

The Hon. Jas. Ferrier, Senator, M. L. C.
Thomas Brown Anderson, Esq.
Andrew Robertson, M.A., Q.C.
The Hon. Christopher Dunkin, M.A., D.C.L.
William Molson, Esq.
The Hon. Alex. Morris, M.A., D.C.L.
Sir John Rose, Bart. K.C.M.G., Q.C.
Peter Redpath, Esq.
David Torrance, Esq.
George Moffatt, M.A.
John H. R. Molson, Esq.
The Hon. Frederick W. Torrance, M.A., B.C.L.
Charles J. Brydges, Esq.

## PRINCIPAL:—

John William Dawson, LL.D., F.R.S., F.G.S., *Vice-Chancellor.*

## FELLOWS:—

Ven. Archdeacon Leach, D.C.L., LL.D., Vice-Principal and Dean of the Faculty of Arts.
Henry Aspinwall Howe, LL.D.
The Hon. J. J. C. Abbott, D.C.L., Q.C., M.P., Dean of the Faculty of Law.
Sir William E. Logan, LL.D., F.R.S., F.G.S.
George W. Campbell, M.A., M.D., Dean of the Faculty of Medicine.
Rev. John Cook, D.D., Principal of Morrin College, Quebec.
Alexander Johnson, LL.D., Professor of Mathematics and Natural Philosophy, McGill University.
Rev. George Cornish, LL.D., Professor of Classical Literature, McGill University.
P. R. Lafrenaye, D.C.L., Professor of Legal History, McGill University.
Hon. T. K. Ramsay, M.A., Professor of Civil Law, Morrin College.
Rev. Henry Wilkes, M.A., D.D., LL.D., Principal and Professor of Theology and Church History in the Congregational College of British North America.
Rev. D. H. McVicar, LL.D., Principal and Professor of Theology in the Presbyterian College of Montreal.
R. A. Ramsay, M.A., B.C.L., Representative Fellow in Arts.
John Reddy, M.D., Representative Fellow in Medicine.
Samuel B. Schmidt, M.D., Representative Fellow in Medicine.
William H. Hicks, Esq., Principal of McGill Normal School.
Rev. John Jenkins, D.D., Chairman of the Protestant Board of School Commissioners for the City of Montreal.
C. P. Davidson, M.A., B.C.L., Representative Fellow in Arts.
J. J. McLaren, B.C.L., Representative Fellow in Law.
Edward Holton, B.C.L., Representative Fellow in Law.
Charles W. Parkin, Esq., Principal of St. Francis College, Richmond.
Robert P. Howard, M.D., Professor of Theory and Practice of Medicine.

[*The Governors, Principal and Fellows, constitute, under the Charter, the Corporation of the University.*]

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## SECRETARY, REGISTRAR, AND BURSAR:—

[*And Secretary of the Royal Institution.*]

William Craig Baynes, B.A. Office, Burnside Hall. Office hours, 10 to 4.

Residence, 4 Cambridge Terrace, McGill College Avenue.

# OFFICERS OF INSTRUCTION.

## PROFESSORS.

| | |
|---|---|
| JOHN WILLIAM DAWSON, LL.D., F R S., F.G S.—Principal, Logan Professor of Geology, and Professor of Natural History. | East Wing McGil College. |
| VEN, ARCHDEACON LEACH, D.C.L , LL.D.,—Vice Principal, Dean of the Faculty of Arts and Molson Professor of English Literature. | Blue Bonnets. |
| HENRY ASPINWALL HOWE, LL.D.—Emeritus Professor of Mathematics and Natural Philosophy. | 405 Sherbrooke St. E |
| HON. J. J. C. ABBOTT, D C.L.—Dean of the Faculty of Law and Professor of Commercial Law. | 916 Sherbrooke Street. |
| GEORGE W CAMPBELL, M.A , M.D.—Dean of the Faculty of Medicine and Professor of Surgery | 707 Sherbrooke Street |
| WILLIAM SUTHERLAND, M D —Emeritus Professor in the Faculty of Medicine. | 219 Dorchester Street. |
| WILLIAM E. SCOTT, M.D.—Professor of Anatomy. | 43 Beaver Hall Terrace. |
| WILLIAM WRIGHT, M D.—Professor of Materia Medica and Pharmacy. | —34 Shuter St |
| ROBERT P. HOWARD, M.D.—Professor of the Theory and Practice of Medicine | 9 Beaver Hall Hill. |
| REV A DENOLA. LL.D.—Professor of Hebrew and Oriental Literature. | 71 McGill Col. Avenue |
| HON. WILLIAM BADGELEY D.C L.—Professor of Public and Criminal Law. | 64 McGill College Avenue. |
| P. R. LAFRENAYE, D. C. L.—Professor of Legal History. | 91 Upper St. Urbain St. |
| R G. LAFLAMME, D. C L.—Professor of the Law of Real Estate. | —1 Cornwall Place. |
| CHARLES SMALLWOOD, M.D., LL.D., D.C.L.—Professor of Meteorology | 20 Beaver Hall Place. |
| CHARLES F. A. MARKGRAF, M.A.—Professor of German Language and Literature | 348 Dorchester Street. |
| D C McCALLUM, M.D —Professor of Midwifery and Diseases of Women and Children | 784 Craig Street |
| ALEXANDER JOHNSON, LL.D —Professor of Mathematics, and Redpath Professor of Natural Philosophy. | 4 Place St. Sophie, McGill Col. Av |
| REV. GEORGE CORNISH, LL D.—Professor of Classical Literature | East Wing McGill College. |
| PIERRE J. DAREY, M A , B.C.L —Professor of French Language and Literature | 39 McGill College Avenue |
| ROBERT CRAIK, M D —Professor of Chemistry. | — 2 Phillips Square. |
| EDWARD CARTER, Q C., B C L — Associate Professor of Criminal Law | — 31 Cadieux Street. |
| G E. FENWICK, M.D —Professor of Clinical Surgery and Medical Jurisprudence | 24 Beaver Hall Terrace |
| JOSEPH M DRAKE, M D.—Professor of the Institutes of Medicine. | 19 Beaver Hall Terrace. |
| N. W. TRENHOLME M.A., B C.L.—Professor of Roman Law | 32 Radegonde Street. |
| J. S. C. WURTELE, B.C.L.—Associate Professor of Commercial Law. | — 434 St. Catherine St. |
| WILLIAM H KERR, D.C.L —Professor of International Law. | — 387 Sherbrooke. |
| GONZALVE DOUTRE, D.C L., Professor of Civil Procedure | — 10 Vitre. |
| GEORGE F. ARMSTRONG, M.A., C.E., F.G.S.—Professor of Civil Engineering and Applied Mechanics | 1 Belmont St. |
| GILBERT P GIRDWOOD M.D.—Professor of Practical Chemistry. | 28 Beaver Hall Terrace. |
| REV. J CLARK MURRAY, LL.D —Professor of Logic, and John Frothingham, Professor of Mental and Moral Philosophy. | 21 Lorne Avenue. |
| GEORGE ROSS, M.A., M.D.—Professor of Clinical Medicine | 19 Place D'Armes Hill |

## LECTURERS :—

| | |
|---|---|
| JOHN S ARCHIBALD, B A., B C.L —Lecturer in Criminal Law | — 3 Place D'Armes. |
| BERNARD L. HARRINGTON, B.A., Ph,D.—Lecturer in Assaying, Mining and Chemistry. | 23 Beaver Hall Terrace. |
| WILLIAM FULLER, M.D.—Demonstrator of Anatomy. | — 515 Wellington. |

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| JOHN ANDREW, Instructor in Elocution. | — 19 Courville Street. |
| FREDERICK S. BARNJUM, Instructor in Gymnastics | — 7 Terrance Terrace. |

# Faculty of Arts.

The Principal (ex-officio).
Professors.—Leach.
De Sola.
Dawson.
Markgraf.
Smallwood.
Johnson.
Cornish.
Darey.
Armstrong.
Murray.
Dean of the Faculty—Ven. Archdeacon Leach, D.C.L., LL.D.
Lecturer in Chemistry—Dr. Harrington.
Librarian—Professor Markgraf.

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The next Session of this Faculty will commence on September 15th, 1873, and will extend to April 30th, 1874.

[*Course of Study*, §I.; *Matriculation*, &c., §II.; *Exhibitions*, &c., §III.; *Examinations*, &c., §IV.; *Exemptions*, &c., §V.; *Medals*, &c., §VI.; *Attendance*, &c., §VII.; *Library*, &c., §VIII.; *Fees*, &c., §IX.; *Courses of Lectures*, §X.]

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## § I. COURSE OF STUDY.

Undergraduates are arranged according to their standing, as Students of the First, Second, Third and Fourth Years; and are required to attend all the Courses of Lectures appointed for their several years under the regulations as to attendance and conduct stated in § VII. The only exceptions are those in favour of Honour and Professional Students stated in V.

### ORDINARY COURSE FOR THE DEGREE OF B. A.

*First Year.*—Classics; French or German; English Language and Literature; Pure Mathematics; History; Elementary Chemistry.

*Second Year,*—Classics; French or German; Logic; Pure Mathematics; Botany.

*Third Year.*—Classics; Rhetoric; Mental and Moral Philosophy; Mixed Mathematics; Experimental Physics; Zoology.

*Fourth Year.*—Classics; English Literature; Mental and Moral Philosophy; Mixed Mathematics; Experimental Physics; Mineralogy and Geology.

Undergraduates are required to study either French or German for two years, [viz., in the First and Second Years] taking the same language in each year. Any

Student failing to pass the Examination at the end of the Second Year, will be required to pass a Supplemental Examination, or to take an additional Session in the Language in which he has failed. In addition to the obligatory, there are other Lectures, attendance on which is optional.

The Lectures in Modern Languages will be so arranged that Students competent and desirous to take in the same years the Lectures in French and in German, may do so.

Students who intend to join any Theological school, on giving written notice to that effect at the beginning of the First Year, may take Hebrew instead of French or German.

The Faculty may permit any Student to take Spanish instead of French or German.

HONOUR COURSES.

At the examination for the Degree of B. A., Honours are given in the following subjects, for which special Honour Courses are provided : — [For details see under § X.]

1. *Classics.*
2. *Mathematics.*
3. *Logic and Mental and Moral Philosophy.*
4. *English Language, Literature and History.*
5. *Natural Science.*

Students taking B. A. Honours in any of the above Courses may omit two of the ordinary subjects in the Degree Examination, under the conditions stated in § IV., 4.

In Mathematics and Physics, Honours are also given in the First, Second, and Third Years, and in Classics in the Third Year.

## § II. MATRICULATION AND ADMISSION.

1. Candidates for Matriculation as Undergraduates are required to present themselves to the Dean of the Faculty, on the 15th of September, for examination ; they may, however, enter after the commencement of the Session, if, on examination, found qualified to join the classes.

The subjects of examination for entrance into the First Year, are Classics, Mathematics, and English.

*In Classics.*—Latin Grammar, Greek Grammar, and one easy Latin and one easy Greek author. The authors recommended are Cæsar; Sallust; Virgil (Æneid, B. I.); Xenophon (Anabasis, B. I,) ; Homer (Iliad, B. I.).

*In Mathematics.*—Arithmetic ; Algebra, to Simple Equations, inclusive; Euclid's Elements, Books, I., II., III.

*In English.*—Writing from Dictation.

2. Candidates not matriculated in the University may be admitted to the standing of students of the Second Year, provided that they pass the Sessional Examinations of the First Year, or an examination in the following subjects at the beginning of the Second Year :—

*In Classics.—Greek.*—Homer, Book VI.; Xenophon, Anabasis, Book I.; Grammar and Prose Composition.

*Latin.*—Virgil, Æneid, Book VI.; Cicero, Orations against Catiline; Grammar and Prose Composition.

*In Mathematics.*—

*Euclid.*—Books I., II., III., IV., VI., with Defs. of Book V. (omitting propositions 27, 28, 29, of Book VI.)

*Algebra.*—To end of Quadratic Equations (Colenso's Alg.)

*Trigonometry.*—Galbraith and Haughton's Trigonometry, Chaps. 1, 2, 3, 4, 6 to beginning of numerical solution of plane triangles.

*Arithmetic.*—Ordinary rules.—Proportion, Interest, Discount, &c., Vulgar and Decimal Fractions, Square Root.

*In English Literature.*—English Grammar and Composition.

*In French or German.*—Grammar and easy Translation.

[Candidates who are unable to pass the entrance Examination of the Second Year in Modern Languages, may be allowed to enter, but will be required to take additional lectures in one Modern Language in the Second Year, or to take the subject in both the Second and Third Years.]

Students of other Universities may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

Candidates for Matriculation as Partial Students, taking three or more Courses of Lectures, or as Students in any Special Course, will be examined in the subjects necessary thereto, as may from time to time be determined by the Faculty.

Persons desirous of taking one or two Courses of Lectures as occasional Students, may apply to the Dean for entry in his Register, and may procure from the Secretary tickets for the Lectures they desire to attend.

Every Student is expected to present, on his entrance, a written intimation from his parent or guardian, of the name of the minister of religion, under whose care and instruction it is desired that the Student shall be placed, who will thereupon be invited to place himself in communication with the Faculty on the subject. Failing such intimation from the parent or guardian, the Faculty will endeavour to establish such relations.

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## § III. SCHOLARSHIPS AND EXHIBITIONS.

### EXHIBITIONS AND UNDERGRADUATE SCHOLARSHIPS.

1. A Scholarship is tenable for *two* years. An Exhibition for *one* year.

### SCHOLARSHIPS.

2. Scholarships are open for competition to Students who have passed the University Intermediate Examination, provided that not more than three Sessions have elapsed since their Matriculation, and also to candidates who have obtained what the Faculty may deem equivalent standing in some other University.

3. Scholarships are divided into two classes [1] *Science* Scholarships; [2] *Classical and Modern Language* Scholarships.

The subjects of Examination for each, are as follows:—

(1) *Science Scholarships.*

Differential and Integral Calculus; Analytic Geometry; Plane and Spherical Trigonometry; Higher Algebra and Theory of Equations; Pure Mathematics, as in Ordinary Course; Botany; Chemistry; Logic.

[2] *Classical and Modern Language Scholarships.*

Greek; Latin; English Composition; English Language and Literature; French

EXHIBITIONS.

4. Exhibitions are assigned to the First and Second Years.

First Year Exhibitions are open for competition to Candidates for entrance into the First Year.

Second Year Exhibitions are open for Competition to Students who have passed the First Year Sessional Examination, provided that not more than two Sessions have elapsed since their Matriculation; and also to Candidates for entrance into the Second Year.

The subjects of Examination are as follows:—

*First Year Exhibitions:*—Classics, Mathematics, English.

*Second Year Exhibitions:*—Classics, Mathematics, English Language, Chemistry, French.

5. The First and Second Year Exhibition Examinations will, for Candidates who have not previously entered the University, be regarded as Matriculation Examinations.

6. No Student can hold more than one Exhibition or Scholarship at the same time; but four of the First Year Exhibitioners will be granted exemption from the Sessional fees throughout their College Course under Presentation Scholarships from the Governor General. (See below.)

7. Exhibitions and Scholarships will not necessarily be awarded to the best answerers at the Examinations. Absolute merit will be required.

8. If in any one College Year there be not a sufficient number of Candidates showing absolute merit, any one or more of the Exhibitions or Scholarships offered for competition may be transferred to more deserving Candidates in another Year.

9. A successful Candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his College Course, to the satisfaction of the Faculty.

10. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz.: in October, December, February and April.

11. The Examinations will be held at the beginning of every Session.

EXHIBITIONS AND SCHOLARSHIPS TO BE OFFERED IN 1873.

There are at present fourteen Scholarships and Exhibitions.

THE JANE REDPATH EXHIBITION, founded by Mrs. Redpath, of Terrace Bank, Montreal. Value, $100 yearly.

THE MCDONALD SCHOLARSHIPS AND EXHIBITIONS, ten in number, established by W. C. McDonald, Esq., Montreal. Value, $125 each, yearly.

THE GOVERNORS' SCHOLARSHIP, established by the Board of Governors. Value, $120 yearly.

THE CHARLES ALEXANDER SCHOLARSHIP, founded by Charles Alexander, Esq., for the encouragement of the study of Classics and other subjects. Value, $120 yearly.

THE TAYLOR SCHOLARSHIP OR EXHIBITION, established by T. M. Taylor, Esq. Value, $120 yearly.

The following will be offered at the Examinations commencing September 15th, 1873, under the regulations above stated:

*First Year.*

THREE EXHIBITIONS.—Two of $125, one of $100. The examinations will be in the following subjects:—

*Greek.*—Homer, Iliad, bk. I.; Xenophon, Anabasis, bk. I.; Lucian, Charon.

*Latin.*—Cicero, Pro Lege Manilia; Livy, bk. V., chapp. I.—XXV.; Horace, Odes bk. I.

*Text Books.*—Hadley's Elements of Greek Grammar. Arnold's Greek Prose Composition, Exercises 1 to 25. Dr. Wm. Smith's Smaller Latin Grammar, and Principia Latina, Part IV.

*Mathematics.*—Euclid, bk. I., II., III., IV., Defs. of bk. VI. Algebra to end of Harmonical Progression [Colenso]. Arithmetic.

*English.*—English Grammar and Composition.—(Bain's Grammar, as far as Derivation.) Special exercises in Grammar and Composition.

*Second Year.*

THREE EXHIBITIONS.—Two of $125 each and one of $100. The Examinations will be in the following subjects:—

*Greek.*—Homer, Iliad, bk. VI., and Odyssey, bk. IX.; Xenophon, Hellenics, bk. I.; Arrian, bk. III.

*Latin.*—Virgil, Æneid, bk. VI.; Livy, bk. V., chapp. XXVI.—LV.; Horace, Odes, bk. III.; Cicero, Select Letters, by Pritchard & Bernard; Clarendon Press Series.

*Text Books.*—Dr. Wm. Smith's History of Greece. Liddell's History of Rome. Hadley's Greek Grammar. Smith's Student's Latin Grammar. Arnold's Greek Prose Composition. Smith's Principia Latinal, Parts IV. and V.

*Mathematics.*—The Mathematics (Ordinary and Honour) of First Year.

*English Literature.*—Bain's Grammar;—Latham's Hand-Book, Prosody;—Special exercises in Grammar and Composition.

*Chemistry.*—The Metallic Elements, as in Roscoe's Elementary Chemistry.

*French.*—Molière, l'Avare, les Femmes savantes, le Misanthrope. De Fivas' Grammaire des Grammaires (up to Syntax). Easy translation from English into French.

*Third Year.*

FOUR SCHOLARSHIPS of $125 yearly.

Two of these will be given on an Examination in Science, as follows:

*Mathematics.*—Differential Calculus (Hall), Chaps. 1 to 8 inclusive, Chaps. 12 and 14. Integral Calculus (Hall, chaps. 1 to 6 inclusive.) Analytic Geometry, (Salmon's Conic Sections). Hind's Plane and Spherical Trigonometry. Salmon's Modern Higher Algebra, (first six chapters). Todhunter's Theory of Equations. All the pure Mathematics of Ordinary Course with remainder of Drew's Conic Sections and of Colenso's Algebra [Part. 1.]

*Natural Science.*—Botany, as in Gray's Structural and Systematic Botany.

*Chemistry*, as in Roscoe's Elements.

*Logic*, as in Whateley's Logic, Books II. and III.

Two will be given on an Examination in Classics and Modern Languages, as follows:—

*Classics.*—*Greek.*—Euripides, Medea; Demosthenes, the Olynthiacs; Xenophon, Hellenics, bk. I.; Herodotus, bk. VIII.; Thucydides, bk. I.

*Latin.*—Horace, Satires, bk. I., and Epistles, bk. I.; Virgil, Georgics, bk. I. Terence, Adelphi; Tacitus, Annals, bk. I.; Cicero, Select Letters. [Vol. I. Teubner Series.]

Greek and Latin Prose Composition.

*History.*—*Text-Books.*—Rawlinson's Manual of ancient History; Smith's Greece; Liddell's Rome.

*English Language and Literature.*—Spalding's English Literature; Bacon's Essays; Klipstein's Anglo-Saxon Grammar; Trench's Study of Words; Trench's English, Past and Present.

*English Composition.*—(High marks will be given for this subject, in order to encourage the practice of it, after the models of the best writers.)

*French.*—Racine, Britannicus, Andromaque, Iphigenie. De Fivas' Grammaire des Grammaires. Translation from English into French.

EXEMPTIONS FROM FEES UNDER PRESENTATION SCHOLARSHIPS, &C.

A number of these are in the gift of Benefactors, and entitle the Students holding them to Exemption from the Sessional Fees in the Faculty of Arts. Sixteen have been placed by the Governors at the disposal of His Excellency the Governor General. Candidates must pass the usual Matriculation Examination.

[By command of His Excellency four of these Exemptions will be offered for competition in the First Year Exhibition Examination of the ensuing session.]

Eight Exemptions from fees may be granted by the Board of Governors from time to time, to the most successful Students who may present themselves as candidates. By order of the Board one of these is given annually to the *Dux* of the High School, or of any other Academy or High School sending up in one year three or more candidates competent to pass creditably the Matriculation Examination.

In the event of an Academy or High School in the Province of Quebec offering for competition among pupils an Annual Bursary in the Faculty of Arts, of not less than $80, the Governors will add the amount of the fees of tuition thereto.

An Exemption from fees may be given annually to any teacher holding the Model School or Academy Diploma of the McGill Normal School, recommended by the Principal and Professors of the School, and passing creditably the Matriculation Examination in Arts.

## § IV. EXAMINATIONS.

### COLLEGE EXAMINATIONS.

There are two Examinations in each year; one at Christmas, and the other at the end of the Session. In both of these, Students will be arranged according to their answering, as 1st Class, 2nd Class, and 3rd Class.

Students who fail in any subject in the Christmas Examinations, are required to pass a Supplemental Examination in that subject before admission to the Sessional Examinations.

Students who fail in one subject in the Sessional Examinations are required to pass a Supplemental Examination in that subject. Should they fail in this, they will be required in the following Session to take the Lectures and pass the Examination in the subject in which they have failed, in addition to those of the Ordinary Course, or to pass the Examination alone without attending Lectures, at the discretion of the Faculty.

Failure in two or more subjects at the Sessional Examinations involves the loss of the Session. The Faculty may permit the Student to recover his standing by passing a Supplemental Examination at the beginning of the ensuing Session. For the purposes of this regulation, Classics and Mathematics are each regarded as two subjects.

The time for the Supplemental Examination will be fixed by the Faculty; and such Examination will not be granted at any other time except by special permission of the Faculty, and on payment of a fee of $5.

## UNIVERSITY EXAMINATIONS.

### 1. FOR THE DEGREE OF B. A.

There are three University Examinations:—the *Matriculation*, at Entrance; the *Intermediate*, at the end of the Second Year; and the *Final*, at the end of the Fourth Year.

1. The subjects of the Matriculation Examination are stated in Section II.

2. In the Intermediate Examination, the subjects are Classics and Pure Mathematics, Logic, and the English language, with one other Modern language, or Botany. Theological Students are allowed to take Hebrew instead of a Modern language. The subjects for the Examination of 1873 are as follows:—

*Classics.*—Greek.—Euripides.—Medea.
Latin.—Tacitus.—Germania and Agricola.
Latin Prose Composition.

*Mathematics.*—Arithmetic.
Euclid, Books I., II., III., IV., VI., and defs. of Book V.
Algebra to Quadratic Equations, inclusive.
Trigonometry, including use of Logarithms.

*Logic.*—Whateley's Logic, Books II. and III.

*English.*—Spalding's History of English Literature.
An English Essay.

With one of the following:—

1. *Botany and Vegetable Physiology.*—Structural and Systematic Botany, as in Gray's Text-book, omitting the Description of the Orders.
2. *French.*—Molière, Misanthrope; Racine, Britannicus, Athalie, Phèdre, History of the French Literature of 17th and 18th centuries; Translation into French.
3. *German.*—Schmidt's German Guide. Adler's Reader. Translation into German.
4. *Hebrew.*—Grammar to the end of the Irregular Verbs. Translation from the Book of Genesis. Exercises,—Hebrew into English, and English into Hebrew.

3. For the Final Examination six subjects are appointed; namely, [1] Classics, [2] Mixed Mathematics, [3] Mental and Moral Philosophy, [4] Natural Science, [5] Experimental Physics, [6] One Modern Language and Literature (or Hebrew), with History.

Every Candidate must pass in four of these, namely, Classics and Mixed Mathematics, which are obligatory, and any two of the remaining subjects at his option. The subjects for 1873 are as follows:—

*Classics.*—Greek.—Aeschylus.—Prometheus Vinctus.
Aeschinus.—Contra Ctesiphontem.
Latin.—Livy.—Book XXI.
Plautus.—Aulularia.
Latin Prose Composition.
General Paper in Grammar and History.

2. *Mathematics.*—Mechanics, Hydrostatics, Optics, Astronomy } As treated in Galbraith and Haughton's Manuals.

[Except in the case of Exemptions to Professional Students as stated in § V.,]

with any two of the following:

3. *Mental and Moral Philosophy.*—Murray's Outline of Hamilton's Philosophy, Stewart's Outline of Moral Philosophy, Pt. II.
4. *Natural Science.*—Geology and Mineralogy, as in Dana's Geology and Manual of Mineralogy.—The Zoology, Botany and Chemistry necessary to the study of the books above named; or as in Dawson's Handbook of Zoology; Gray's Structural and Systematic Botany, and Roscoe's Inorganic Chemistry.
5. *Experimental Physics.* — *Light.* — Theories.— Reflection.-- Refraction.--Dispersion, Interference and Diffraction.--Double Refraction.--Polarisation. *Heat.*--Dilatation of Solids and Gases.--Specific and latent Heat.--Radiation and Conduction of Heat.--Mechanical Theory of Heat.
4. *History and English Literature.*—Smith's Student's Gibbon.—Smith's Student's Hume.—Marsh's Handbook of the English Language and Collier's History of English Literature.

Or instead of History and English, Candidates may take one of the following:

(a) *History and French.*—History as above. The course of French for the Fourth Year.—Bossuet, Discours sur l'Histoire Universelle; Boileau, Art poétique. Translation into French, and French Composition.

(b) *History and German.*—History as above. Schiller, Geschichte des 30 jahrigen Krieges; Goethe, Iphigenie auf Tauris. General Paper on Grammar, Translation into German, and German Prose Composition.

(c) *History and Hebrew.*—(Theological Students only.) History as above. Hebrew Grammar; Translations from first four chapters of Isaiah; any three of the Psalms; the Chaldaic portions of the Scriptures; Targum of Onkelos on Genesis Chap. I.; Modern Hebrew Poetry, Halevi or Gabirol.

*Exemptions for Candidates for B. A. Honours.*

4. Candidates for B. A. Honours who at the Third Year Sessional Examination have been placed in the 1st or 2nd Class in any two of the six subjects appointed for the Final Examination, are entitled to the following privileges:—

[1] They may claim to have the Third Year Examination in these two subjects regarded as a B. A. Examination in the same. [This amounts to exemption at the ordinary B. A. Examination from two of the subjects required. §IV. 3.]

[2] They are required to attend the Ordinary Lectures of the Fourth Year in two subjects only. These must be the subjects in which they are to pass the ordinary B. A. Examination, if Lectures are delivered in them; if not, the choice is left to the candidate.

No Student shall be entitled to the above privileges unless his attendance on Lectures in the Fourth Year, and progress in the subject in which he is a Candidate for Honours, shall be satisfactory to the Professor, nor unless he shall have obtained a certificate of creditable answering in the Honour Examinations.

### II. FOR THE DEGREE OF M. A.

Bachelors of Arts, of at least three years' standing, are entitled to the degree of Master of Arts, after such examination and exercises as may be prescribed by the Corporation. The exercise at present appointed is the preparation of a Thesis on any literary, scientific or professional subject to be selected by the candidate, and approved by the Faculty. The Thesis to be submitted to the Faculty and reported on to the Corporation.

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## § V. SPECIAL PROVISIONS FOR PROFESSIONAL STUDENTS.

### I. LAW AND MEDICAL STUDENTS.

Students of the Third and Fourth Years matriculated in the Faculties of Law or Medicine of this University, are entitled to the following exemptions:

In the Third Year they may omit the Lectures and Examinations in Astronomy and Optics, and in any one of the following subjects: Zoology, Experimental Physics or Rhetoric.

In the Lectures of the Fourth Year, they may omit Greek; and also Geology or Experimental Physics. At the Christmas Examinations of the Fourth Year, they may omit Astronomy and Optics.

In the Ordinary B. A. Examination, they may, in Classics, pass in Latin alone; and in Mixed Mathematics, in Mechanics and Hydrostatics alone.

To be allowed these privileges in either year, they must give notice at the commencement of the Session to the Dean of the Faculty of their intention to claim exemptions as Professional Students, and must produce at the end of the Session certificates of attendance on a full course of Professional Lectures during the year for which the exemptions are claimed.

### II. STUDENTS OF AFFILIATED THEOLOGICAL COLLEGES.

Such Students, whether entered as Matriculated or Occasional, are subject to the regulations of the Faculty of Arts in the same manner as other students.

The Faculty will make formal reports to the Governing body of the Theological College, to which any such Students may belong, as to:—[1] their conduct and attendance on the classes of the Faculty; and [2] their standing in the several examinations, such reports to be furnished after the Christmas and Sessional Examinations, severally, if called for.

Matriculated Students are allowed no exemptions in the course for the degree of B. A. till they have passed the Intermediate Examination; but they may take Hebrew in the First and Second Years, instead of Modern languages.

In the Third and Fourth Years they are allowed exemptions from the following subjects:—

In the Third Year they may omit Astronomy and Optics, Experimental Physics, and Rhetoric.

In the Fourth Year they may omit Experimental Physics and English Literature.

Certificates of attendance on the full course of lectures in the Theological College, during the year for which the exemptions are claimed, must be produced by Students who avail themselves of these exemptions, before presenting themselves for Examination.

[No Student will be allowed in the same session both Professional and Honour Exemptions.]

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## § VI. MEDALS, HONOURS, PRIZES AND CLASSING.

1. GOLD MEDALS will be awarded in the B. A. Honour Examinations to Students taking the highest Honours of the First Rank in the subjects stated below, and who shall have passed creditably the Ordinary Examinations for the degree of B. A.

The *Chapman Gold Medal*, for the Classical Languages and Literature.
The *Prince of Wales Gold Medal*, for Logic and Mental and Moral Philosophy.
The *Anne Molson Gold Medal*, for Mathematics and Natural Philosophy.
The *Shakspeare Gold Medal*, for the English Language, Literature and History.
The *Logan Gold Medal*, for Geology and other Natural Sciences.

In the event of there being no candidates for any Medal, or of none of the candidates fulfilling the required conditions, the Medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subjects for which the Medal was intended. For details, see announcements of the several subjects below.

2. HONOURS, of First or Second Rank, will be awarded to those Matriculated Students who have successfully passed the Examinations in any Honour Course established by the Faculty, and have also passed creditably the ordinary Examinations in all the subjects proper to their year.

3. CERTIFICATES of High General Standing will be granted to those Matriculated Students, who are placed in the First Class in the aggregate of the studies proper to their year.

4. PRIZES OR CERTIFICATES, to those Matriculated Students who may have distinguished themselves in the studies of a particular class, and have attended all the other classes proper to their year.

Students taking B. A. Honours will be placed at the Head of the Degree list; and Students who pass the Ordinary Degree Examination will be arranged as 1st Class, 2nd Class, or 3rd Class, according to their answering.

5. THE STEWART PRIZE of $20, established by the Rev. Colin C. Stewart, M.A., is open to all Undergraduates, and also to Graduates of this or any other University studying Theology in any College affiliated to this University.

1. The prize will not be given for less than a thorough examination in Hebrew Grammar passed in the First Class, in reading and translating the Pentateuch and such poetic portions of the Scripture as may be determined.

2. In case competitors should fail to attain the above standard, the prize will be withheld and a prize of Forty Dollars will be offered in the following year for the same.

[Course for the present year:—Hebrew Grammar (Gesenius); Translation and analysis of the first ten chapters of Genesis; the Prophet Habakkuk (the whole book); and the first five Psalms.]

3. There will be two Examinations of three hours each, one in Grammar, and the other in Translation and Analysis.

6. The names of those who have taken Honours, Certificates, or Prizes, will be published, in the order of Merit; and with mention, in the case of Students of the First and Second Years, of the schools in which their preliminary education has been received.

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## § VII. ATTENDANCE AND CONDUCT.

All Students shall be subject to the following regulations for attendance and conduct:

1. A Class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.

2. Professors shall note the attendance immediately on the commencement of their Lectures, and shall omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, shall be reported to the Dean of Faculty, who may reprimand the student, or refer to the Faculty, as he may think proper. He may also suspend from classes until the next meeting of the Faculty.

3. The number of times of absence, from necessity or duty that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty. [Under this rule attendance on at least two-thirds of the lectures will in all cases be required.]

4. While in the College, or going to and from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the College building or grounds, may admonish the student, and if necessary report him to the Dean.

5. Every student is required to attend regularly the religious services of the denomination to which he belongs, and to maintain, without, as well as within, the walls of the College a good moral character.

6. When Students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes and honors, suspend from Classes, or report to the Corporation for expulsion.

7. Any Student injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such other penalty as the Faculty may see fit to inflict.

8. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal, or, in his absence, to the Vice-Principal.

## § VIII. LIBRARY AND MUSEUM.

1. The books in the Library consist of two divisions :--1st, those which may be lent; 2nd, those designated by the general term "Books of Reference," which may not, under any circumstances, be removed from the Library.

2. Students may borrow books from the Library on depositing the sum of four dollars with the Librarian, and signing a receipt for the books; such deposit to be returned to the Student on his returning the books uninjured.

3. Students may borrow not more than three volumes at one time, except on special recommendation of a Professor, and must return them within two weeks, on penalty of a fine of one shilling for the first week of detention, and two shillings and sixpence for each subsequent week.

4. A Student incurring a fine will be debarred the use of the Library until the fine has been paid.

5. Any volume or volumes lost or damaged by a student shall be paid for by him, at such rates as the Faculty may direct, having reference to the value of the book and of the set to which it may belong.

6. Students may read in the Library at such hours as may be determined by the Faculty.

7. Professors and Lecturers may borrow any books required by them for their duties in the College, not exceeding ten volumes at any one time. Books so borrowed must be returned at or before the end of each Session.

8. Graduates in any of the Faculties, on making a deposit of four dollars, are entitled to the use of the Library, subject to the same rules and conditions as students, but they are not required to pay the Annual Library Fee.

9. Members of the McGill College Book Club are, by a regulation of Corporation, entitled to the use of the Library on the same conditions as Graduates.

10. Persons not connected with the College may consult books in the Library on obtaining an order from any of the Governors, or from the Principal, the Dean of Faculty or any of the Professors; and donors of books or money to the amount of Fifty Dollars may at any time consult books on application to the Librarian.

11. The Library will be open from 10 a.m. to 4 p. m., daily, except Saturdays, during the Session, and in the months of May and June. On Saturday it will be open from 1 to 4 p.m.

12. No one is allowed to enter the alcoves or to take down books from the shelves, except the Governors, Members of Corporation, Professors, the Librarian and his assistants, or those whom any of the above may accompany personally.

13. A person desiring to read or to borrow a book, which he has ascertained from the Catalogue to be in the Library, will fill up one of the blank forms provided for Readers and Borrowers respectively, and hand it to the Librarian, who will thereupon procure him the book.

14. Readers must return the books they have obtained to the Librarian before leaving the Library.

15. No conversation that can disturb Readers is permitted in the Library.

16. The time and conditions of study in the Museum will be arranged by the Professor of Natural History.

## § IX. FEES AND RESIDENCE.

*Matriculation Fee* for the First Year (to be paid in the Year of Entrance only), - - - - - - - - - - $ 4 00

*For the Second Year*, (exigible from students who enter in the second year and also from those who have failed in the First Year and re-enter in the Second Year on Examination, - - - 6 00

*Sessional Fee*, - - - - - - - - - - 20 00

*Library Fee*, - - - - - - - - - - - 2 00

*Gymnasium Fee*, - - - - - - - - - - - 2 00

*Undergraduates and Students in Special Courses* are required to pay all the above Fees.

*Partial Students* are required to pay the Matriculation, Library and Gymnasium Fees, and $5 for each Class which they attend, or $20 for all the courses.

*Occasional Students*, or those taking one or two courses of Lectures only, and not Matriculated, are required to pay $5 per Session for each course.

The Matriculation, Library and Gymnasium Fees are exigible from students holding exemptions from Sessional Fees.

*Graduates in Arts* are allowed to attend without payment of fees all lectures except those noted as requiring a special fee.

The fees must be paid within a fortnight after the commencement of attendance in each session. In case of default, the Student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty and on payment of a fine of $2.

*Graduation Fee* for the Degree of B. A. - - $ 5 00

do. do. for the Degree of M. A. - - - 10 00

The Graduation Fees must be paid before the Examinations.

Students in Arts are permitted to Board in the City; or in the College, under the superintendence of the Rev. Prof. Cornish.

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## § X. COURSES OF LECTURES.

### I.—ORDINARY COURSE.

#### 1.—CLASSICAL LITERATURE AND HISTORY.

Professor Rev. G. Cornish, LL.D.

GREEK.

*First Year.*—Homer.—Iliad, Book VI.
Xenophon.—Hellenics.—Book I.
*Greek Prose Composition.*

*Second Year.*—Herodotus, Book IX.
Euripides.—Medea.
*Greek Prose Composition.*

*Third Year.*—Demosthenes.—The Olynthiacs.
Æschylus.—Septem Contra Thebas.

*Fourth Year.*—Sophocles.—Electra.

LATIN.

*First Year.*—Virgil.—Æneid, Book VI.
Cicero.—Epistolae Selectae.
*Latin Prose Composition.*

*Second Year.*—HORACE.—EPISTLES, Book I.
VALERIUS MAXIMUS.—BOOK III.
*Latin Prose Composition.*
*Third Year.*—JUVENAL.—SATIRES VIII. and X.
PLAUTUS.—AULULARIA.
*Latin Prose Composition.*
*Fourth Year.*—TACITUS.—ANNALS, BOOK I.
*Latin Prose Composition.*

In the work of the Class the attention of the Student is directed to the collateral subjects of History, Antiquities and Geography; also to the Grammatical structure and affinities of the Greek and Latin Languages; and to Prosody and Accentuation.

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2. ENGLISH LITERATURE.—(MOLSON PROFESSORSHIP),

Professor, VEN. ARCHDEACON LEACH, D.C.L., LL.D.

*First Year.*—English Language and Literature.—Anglo-Saxon Grammar.—Text-Books—Bain's English Grammar; Spalding's History of English Literature; Klipstein's Anglo-Saxon Grammar.
*Third Year.*—Rhetoric.—Text-book—Whateley's Rhetoric, I., II., III.
*Fourth Year.*—English Literature.—Text-Book—Marsh's Hand-book.

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3.—LOGIC, MENTAL AND MORAL PHILOSOPHY.

Professor, REV. J. CLARK MURRAY.

*Second Year.*—Elementary Psychology. Text-book.—Stewart's Outlines of Moral Philosophy, Part. I.—Logic. Text-book—Whateley's Logic.
*Third Year.*—Moral Philosophy. Text-book—Stewart's Outlines, Part. II.
*Fourth Year.*—Psychology. Text-book—Murray's Outline of Hamilton's Philosophy.

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4. FRENCH LANGUAGE AND LITERATURE.

Professor, P. J. DAREY, M. A., B. C. L.

*First Year.*—DEFIVAS' Grammaire des Grammaires.
MOLIERE, le Mariage forcé, les Femmes savantes, le Misanthrope.
Dictation, Colloquial exercises.
*Second Year.*—DEFIVAS' Grammaire des Grammaires.
RACINE, Mithridate, Britannicus, Phèdre.
Translation into French: DR. JOHNSON, Rasselas.
Lectures on French Literature; Bonnefon, Ecrivains célèbres de la France, to the eighteenth century.
Dictation, Parsing, Etymology. Colloquial exercises.
*Third Year.*—POITEVIN, Grammaire élémentaire.
CORNEILLE, Le Cid, Cinna, Horace.
Translation into French: GOLDSMITH, Vicar of Wakefield.
French Composition, Dictation.
History of the French Literature of the 18th and 19th centuries.
*Fourth Year.*—BOILEAU, Art Poétique. Fénelon, Lettre à l'Académie.
Lectures on French Literature: GERUZEZ, Littérature française.
Translation into French. Dictation.
French Composition.

The Lectures in the 3rd and 4th Years are given in French.

## 5. GERMAN LANGUAGE AND LITERATURE.

Professor, C. F. A. MARKGRAF, M.A.

*First and Second Years.—Ordinary Course:*—This Course comprises Grammar, Reading and Analysis, translations oral and written, and Dictation. Special regard is had to the affinities of the German with the English. Text-Books; Schmidt's German Guide (1st and 2nd Course); Adler's Progressive German Reader.

*First Year.—Advanced Course:*—Text Books;—Schmidt's German Guide (1st and 2nd Course); Adler's Progressive German Reader.

*Second and Third Years.—Advanced Course:*—Text Books;—Schmidt's German Guide (3rd Course); Select Readings in German Prose and Poetry (the Books to be used will be made known at the commencement of the Session.) Translations from English writers and Composition.

During this Course a series of Lectures will be delivered on the History of German Literature, from the earliest periods down to the classical age of Goethe and Schiller; closing with a brief notice of the state of German Literature at the present day.

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## 6. HEBREW AND ORIENTAL LITERATURE.

Professor, REV. A. DE SOLA, LL.D.

*Elementary Course.—For Students of the First and Second Years.*—Grammar;—Text-Book;—Gesenius' Hebrew Grammar, with exercises in Orthography and Etymology. Reading;—Translation and Grammatical Analysis of Historical Portions of the Scriptures—Syntax—Mishlé Shualim—Fables, &c.

*Advanced Course.—(For Students of the Second, Third and Fourth Years.)*—Introduction to the study of Hebrew Poetry—its spirit and characteristics. Lowth and Sarchi as Text-Books. Translation from the Psalms, Lamentations and Isaiah. Ancient compared with Modern Hebrew Poetry; the productions of Halevi, Gabirol, &c. Grammar, Exercises, &c., continued.

*The Chaldee Language:*—Grammar, *Mebo Halashon Aramith* of J. Jeitteles. The Chaldee portions of Scripture. Targum of Onkelos and T. Yerushalmi.

*The Syriac Language:*—Grammar, (Uhlemann's) and Translation.

The course comprises lectures on the above Languages and their Literature in particular, with a general notice of the other Oriental Languages, their genius and peculiarities. Comparative Philology, affinity of roots, &c., also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, History, &c.

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## 7. SPANISH LANGUAGE AND LITERATURE.

REV. PROFESSOR DE SOLA.

(Extra Fee for this Class, $5.00.)

The study of the Spanish Language on this continent, being generally pursued with special reference to commercial purposes, it will be sought to impart in this course, a practical knowledge of the Castilian, the richest and most harmonious of the Peninsular languages—as well as an acquaintance with its Literature.

Ollendorf's Spanish Grammar by Velazquez and Simmoné, and the Reader of Velazquez, are the Text-Books employed in the Junior Class, who will also be exercised in composition by both written and oral exercises. In the Senior Class, Fernandes'

Exercises, continuation of Grammar and Composition, Cervantes' Don Quixote, Quintana Vida del Cid, and Mariana's Historia will be the subjects of study. Besides a special comparison with the Portuguese Language, a general notice, literary and historical, of the Bascuence and other dialects, will be given.

## 8. MATHEMATICS AND NATURAL PHILOSOPHY
## (PETER REDPATH PROFESSORSHIP OF NATURAL PHILOSOPHY.)

Professor, ALEXANDER JOHNSON, LL.D.

MATHEMATICS.—(*First Year*)—Arithmetic.—Euclid, Books 1,2,3,4,6, with Definitions of Book 5 (omitting propositions 27, 28, 29, of Book 6). Todhunter's Edition.—Colenso's Algebra, part 1 to end of Quadratic Equations.—Galbraith and Haughton's Plane Trigonometry to end of Solution of Plane Triangles.—Nature and use of Logarithms.

MATHEMATICS.—(*Second Year*)—Arithmetic, Euclid, Algebra, and Trigonometry as before.—Remainder of Galbraith and Haughton's Plane Trigonometry.—Conic Sections treated Geometrically. (The Parabola as in Drew's Conic Sections,) the definitions of the Ellipse and Hyperbola, with the fundamental properties of their tangents,—Euclid, Book XI., Props. 1 to 21; Book XII., Props. 1, 2.

The course for the Intermediate University Examination consists of the Mathematics for the first two years, except Conic Sections and Solid Geometry.

MATHEMATICAL PHYSICS AND ASTRONOMY.—(*Third Year*)—Galbraith and Haughton's Mechanics (omitting chap. 5 of Statics), Hydrostatics, Optics and Astronomy.

At the Ordinary Examinations, answers to questions in Mechanics, on the Chapters on Friction, Collision of Bodies and Projectiles, will be taken into account only in determining the relative positions of those whose other answers shall entitle them to be placed in the First Class.

EXPERIMENTAL PHYSICS.—(*Third and Fourth Years.*)—1.—*Light.*—Theories.—Reflection.—Refraction.—Dispersion.—Interference and Diffraction.—Double Refraction.—Polarisation. 2.—*Heat.*—Dilatation of Solids, Liquids and Gases.—Specific and Latent Heat.—Radiation and Conduction.—Mechanical Theory of Heat. 3.—*Electricity.*—Statical and Dynamical; including Electro-Magnetism—Magneto-Electricity.—Thermo-Electricity.—Diamagnetism.—Electric Measurements.—Practical Applications to Telegraph, &c. 4.—*Magnetism.* 5.—*Acoustics,*—Theory of Undulations.—Production and Propagation of Sound.—Vibrations of Rods and Plates.—Vibrations of Fluids.—Musical Sounds. Text-Books—Ganot's Treatise translated by Atkinson, and Tyndal on Heat. This Course extends over two years.

The Subjects for the Session 1873-74 are Heat and Light.

The Lectures in Mathematical and Experimental Physics will be illustrated by Apparatus.

## 9. GEOLOGY AND NATURAL HISTORY.
## (LOGAN PROFESSORSHIP OF GEOLOGY.)

Professor J. W. DAWSON, LL.D., F.R.S., F.G.S.

I. BOTANY.—(Second Year.)

(1) *Histology, Morphology and Physiology of the Plant,* or description of its elementary tissues and organs, and investigation of its functions of nutrition and reproduction. (2) *Systematic and Descriptive Botany,* with special notices of the Flora of Canada and instructions for collecting and determining Plants, and for the use of the Microscope. (3) *Geographical Botany.*

*Text-Book.*—Gray's Structural and Systematic Botany.

A prize of $20 will be given for the best collection of Plants, and the greatest proficiency in their determination. The prize collections or duplicates of them to remain n the College Museum. Candidates must be Students in Botany of the previous session. *

II. Zoology and Comparative Physiology. (Third Year.)

(1) *General Zoology*, including the Elements of the Histology, and Comparative Anatomy and Physiology of Animals, with the Principles of Classification and the division of the Animal Kingdom into Provinces or Sub kingdoms. (2) *Descriptive Zoology*, including the character of the Classes and Orders of the Animal Kingdom, illustrated by typical examples, and as far as possible by Canadian species.

*Text-Book.*—Dawson's Hand-book of Zoology, with books of reference.

A prize will be given for the best named collection of Canadian Fossils: conditions as stated above under Botany. * The quality and number of the specimens will be considered as well as the correctness of their determination.

III. Mineralogy and Geology. (Fourth Year.

(1) *Mineralogy.*—Chemical and Physical characters of Minerals including Crystallography, the methods of determining species, and Descriptive Mineralogy; with special reference to those species most important to Geology, or useful in the Arts.

(2) *Physical Geology.*—Composition of Rocks and their structure on the small scale. Classification of Rocks. Arrangement of Rocks on the large scale; stratification, elevation and disturbances, denudation.

(3) *Chronological Geology and Palæontology.*—Data for determining the relative ages of formations. Classification according to age. Fauna and Flora of the successive periods. Geology of British America.

*Text Books.*—Dana's Manuals of Mineralogy and Geology, with Lyell's Elements.

The Lectures in Natural History will be accompanied with demonstrations in the Museum. Students in Natural History are also entitled to tickets of admission to the Museum of the Natural History Society of Montreal.

*From the Surplus income of the Logan Medal Fund.

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## 10. CHEMISTRY.

Lecturer, B. I. Harrington, B.A., Ph. D.

*First Year.*—A course of Elementary Chemistry preparatory to the course in Natural Science and Practical Science.

*Text Book.*—Roscoe's Lessons in Elementary Chemistry.

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## 11. METEOROLOGY.

Professor, Charles Smallwood, M.D., LL.D.

Instruction in Meteorological Observations will be given in the Observatory, at hours to suit the convenience of the senior students.

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## 12. ENGLISH HISTORY.

It is expected that a course of Ten Lectures on Early English History will be delivered by Prof. Goldwin Smith, M.A., beginning in October. Details will be announced in a special advertisement. A special Prize will be given.

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## 13. ELOCUTION.

Mr. John Andrew, Instructor.

Students are recommended by the Faculty to avail themselves of the instructions of Mr. Andrew, who will make arrangements for evening classes to meet during the Session.

# II. HONOUR COURSES.

## 1. CLASSICS.

### B. A: HONOURS, BEING THE HONOUR COURSE FOR STUDENTS OF THE THIRD AND FOURTH YEARS.

Candidates for B. A. Honours in Classics will be examined in the following subjects:

I. GREEK.

I.—*Greek Philosophy.*

Plato.—Republic, Books I. and II.

Aristotle.—Nicomachean Ethics, Books I. and II.

II.—*Greek History.*

Herodotus.—Books VIII. and IX.

Thucydides.—Book I.

Xenophon.—Hellenics, Books I. and II.

III.—*Greek Poetry.*

*a.* *Epic.*—Homer.—Odyssey, Books I. II. and III.

Hesiod.—Works and Days.

*b.* *Dramatic.*—Æschylus.—Prometheus Vinctus.

Seven against Thebes.

Sophocles.—Antigone.

Euripides.—Hippolytus.

Aristophanes.—The Frogs.

*c.* *Lyric and Bucolic.*—Pindar.—Olympic Odes.

Theocritus.—Idyls I. to VI.

IV.—*Greek Oratory.*

Demosthenes.—De Corona.

Æschines.—Contra Ctesiphontem.

II. LATIN.

I.—*Roman History.*

Livy.—Books XXI., XXII. and XXIII.

Tacitus.—Annals, Books I. and II.

Histories, Book I.

II.—*Roman Poetry.*

*a.* *Epic.*—Virgil.—Æneid, Books I. to IV.

*b.* *Dramatic.*—Plautus.—Aulularia.

Terence.—Adelphi.

*c.* *Satiric.*—Horace.—Satires, Book I.

Juvenal.—Satt. VIII. and X.

Persius.—Satt. V. and VI.

III.—*Roman Oratory and Philosophy.*

Cicero.—De Imperio Cn. Pompeii.

De Officiis.

III. HISTORY OF GREECE AND ROME.

*Text Books:*—

1. Grote's History of Greece, Vols. III. to VIII.
2. Arnold's History of Rome.
3. Mommsen's History of Rome.

IV. COMPOSITION.

1. Composition in Greek and Latin prose.
2. General paper on Grammar, History and Antiquities.

The Examination for B. A. Honours will extend over four days, in the morning from 9 to 12, and the afternoon from 2 to 5.

## 2. LOGIC, MORAL PHILOSOPHY, AND MENTAL PHILOSOPHY.

### B. A. HONOUR COURSE.

*Third Year.*—History of Ancient Philosophy.

*Fourth Year.*—History of Modern Philosophy.

Candidates for B. A. Honours in the department of Philosophy will be examined on the following works, in addition to the subjects treated in the Lectures.

Mill's Logic, Book III.

Thomson's Outline of the Laws of Thought, Parts. I., II., and III.

Schwegler's History of Philosophy.

Locke's Essay on the Human Understanding.

Kant's Critique of Pure Reason.

Kant's Metaphysic of Ethics.

Plato's Theætetus (in English).

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## 3. ENGLISH LANGUAGE, LITERATURE AND HISTORY.

### B. A. HONOUR COURSE.

I. *Language.*

Klipstein's Anglo-Saxon Grammar.

Thorpe's Analecta Anglo-Saxonica.

Marsh's Lectures on the English Language, by Smith.

Craik's Outlines of the History of the English Language.

Tyrwhitt's Essay on the Language and Versification of Chaucer.

Trench's Study of Words.

Trench's English, Past and Present.

Trench's Glossary.

II. *Literature.*

Required from the Student a general acquaintance with the works of the English Classical authors, and a more minute study of the following portions of English Literature.

Shakespeare's Plays.

Chaucer.—Canterbury Tales; The Prologue and the Knight's Tale; the Flower and the Leaf; the House of Fame.

Spenser—Fairie Queen; Books I., II.

Marlowe—Faustus and Jew of Malta.

Milton—Paradise Lost; Comus; Lycidas; L'Allegro.

Dryden—Absalom and Achitophel; Annus Mirabilis; Dedications to his Translations of Virgil's Æneid and the Satires of Juvenal.

Pope—Dunciad; Essay on Criticism; Rape of the Lock; Eloisa and Abelard; Prefaces to his Translations of Homer's Iliad and Odyssey.

Bacon—Essays.

Required to be read in connection with this part of the Course :—

Craik's History of English Literature.

Hallam's Literary History of Europe—the parts relating to English Literature.

Johnson's Lives of the Poets.

Dunlop's History of Fiction.

III.—*History.*

Required a general acquaintance with the History of England to the year 1714, and a more minute knowledge of the Anglo-Saxon period, of the 13th and 14th centuries, and of the period from the accession of Elizabeth to that of George I. The following books are recommended :

Kemble's Saxons in England.

Lappenberb's England under the Anglo-Norman Kings.
Longman's Life and Times of Edward III.
Pauli's Life of Alfred the Great.
Froude's History of England.
Macaulay's History of England.
Clarendon's History of the Rebellion.
Hallam's Constitutional History of England.

## 4. MATHEMATICS AND PHYSICS.

### HONOUR COURSE.

MATHEMATICS.—(*First Year.*)—McDowell's Exercises on Modern Geometry, &c. Wood's Algebra.—Hind's Plane Trigonometry.

MATHEMATICS.—(*Second Year.*)—Todhunter's Theory of Equations.—Hind's Spherical Trigonometry.—Salmon's Analytic Geometry, first thirteen chapters.—Hall's Calculus.—Chapters 1, 2, 3, 4, 6, 7, of Diff. Cal.; Chapters 1, 2, 3, 4, 5. of Integ. Cal.

MATHEMATICAL PHYSICS.—(*Third Year.*)—Todhunter's Statics, (omitting Chapter 13.)—Tait & Steele, Dynamics of a particle.—Besant's Hydrostatics, Chaps. 1, 2, 3, 5.—Walton's Mechanical and Hydrostatical Problems.—Parkinson's Optics. Main's Practical and Spherical Astronomy (selected course.)

### B. A. HONOUR COURSE.

PURE MATHEMATICS.—Hind's Plane and Spherical Trigonometry.—Todhunter's Theory of Equations.—Hall's Differential and Integral Calculus.—Boole's Differential Equations (selected course.)—Gregory's Examples of the Calculus (omitting the last two Chapters). Salmon's Conic Sections.—Salmon's Geometry of Three Dimensions (selected course.)

MECHANICS.—Todhunter's Statics.—Tait & Steele, Dynamics of a Particle.—Routh's Dynamics of a Rigid Body.—Besant's Hydrostatics and Hydrodynamics.—Walton's Mechanical Examples.—Walton's Examples in Hydrostatics.

ASTRONOMY.—Main's Astronomy.—Sir John Herschel's Outlines of Astronomy (Part II. on the Lunar and Planetary Perturbations).—Godfray's Lunar Theory.

Newton's Principia, Lib. I., Sects. 1, 2, 3, 9 and 11.

LIGHT.—Lloyd's Wave Theory of Light.

HEAT,
ELECTRICITY,
MAGNETISM,
ACOUSTICS,
} As in ordinary course.

The examination for B. A. Honours will continue *four* days.

The examinations for honours in the other years will continue *two* days.

Engineering students may be candidates for honours.

## 5. NATURAL HISTORY AND GEOLOGY.

### B. A. HONOUR COURSE.

Students entering for Honours must have passed creditably the Examinations in Elementary Chemistry, Zoology, Botany and Experimental Physics; and should know the elements of Drawing. Students entering for practical purposes will be required only to satisfy the Professor of their fitness for the studies of the class.

Candidates for Honours will be expected to attain such proficiency as to be able to undertake original investigations, in some at least of the subjects of study.

The Lectures will include.—

1. An advanced course in General Geology and Palæontology, in connection with which the Students will be required to read Dana's Geology and Lyell's Student's Elements.

2. Methods of observation and of conducting Geological Surveys. Application of the science to Mining, Engineering and Agriculture.

3. Canadian Geology, in connection with which the Students will read Logan's Report of the Geological Survey of Canada, and Dawson's Acadian Geology.

4. Practical Palæontology and determination of species; with books of reference from the College Library, and specimens from the Museum. Text-book. Nicholson's Manual of Palæontology.

5. Excursions for Field Work will be undertaken when practicable.

In addition to the above, the Student is required to pass an examination in any one of the following subjects :—

1. The systematic part of Botany, as in Gray's "Text Book" and "Manual," and specimens illustrative of these books from the Museum.

2. Huxley's Elements of Comparative Anatomy and Dawson's Handbook of Zoology, and specimens illustrative of the latter.

3. Dana's Mineralogy, and specimens illustrative thereof from the Museum.

# Lectures in the Undergraduate Course in the Faculty of Arts.

## SESSION 1873-4.

### FIRST YEAR.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|---|---|---|---|---|---|
| 9 | Classics, | † Mathematics (*a*) | * French, | † Mathematics, (*a*) | Mathematics, |
| 10 | Mathematics, | Classics, | Classics, | Classics, | Classics, |
| 11 | English, | * French, | English, | * French, | English, |
| 12 | Elementary Chemistry: | * German, *Hebrew: | Mathematics. | * German, *Hebrew: | Elementary Chemistry |
| 1 | | | | | |

### SECOND YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | † Mathematics, | Mathematics, | Logic, | Mathematics, (*b*) | * German, |
| 10 | Classics, | Botany, | * German, | Botany, | * French, |
| 11 | Logic, | Classics, | † Mathematics, | Classics, | Classics, |
| 12 | * French, | * Hebrew. | * French. | * Hebrew: | Logic. |
| 1 | * German. | | | | |

### THIRD YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | French, (*c*) | Classics, | † Classics, | Classics, | French, (*c*) |
| 10 | Moral Philosophy, | †Math. Phys. †Men. Phil. | Mathematical Physics, | † Mathematical Physics, | Moral Philosophy, |
| 11 | Mathematical Physics, | Zoology, | German, (*c*) | Zoology, | Mathematical Physics, |
| 12 | Classics. | (§) Experimental Physics, | Rhetoric. | (§)Experimental Physics, | † Classics, |
| 1 | | Hebrew (*c*) | | Hebrew. (*c*) | German (*c*) |

### FOURTH YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | Geology, | French, (*c*) | † Classics, † Math. Phys. | French (*c*) | Geology, |
| 10 | † Geology, | German (*c*) | English Literature, | German (*c*) | † Math. Phys. †Geology, |
| 11 | Classics, | Mental Philosophy, | Classics, | Mental Philosophy, | † Mental Phil'y |
| 12 | † Mental Philosophy, | (§) Experimental Physics, | ‡ Geology. | (§) Experimental Physics, | † Classics, |
| 1 | German: (*c*) | Hebrew (*c*) | | Hebrew. (*c*) | |

(*a*) During Second Term. (*c*) Optional. † For Candidates for Honours.

(*b*) " First * The Student may take at his option French or German in the first two years, or if a Theological Student, Hebrew: § From November 1st.

Classes at 1 P. M. may be changed to other hours. ‡ For Practical work:

Library open every day except Saturday 10 to 4; Saturday, 1 to 4. The Museum will be open as arranged by the Professor of Natural History.

# Department of Practical and Applied Science,

IN THE FACULTY OF ARTS.

*Geology and Palæontology.*—J. W. Dawson, LL.D., F.R.S., Professor.
*English Language.*—Ven. Archdeacon Leach, LL.D., Professor.
*Meteorology.*—Charles Smallwood, M.D., LL.D., Professor.
*German.*—C. F. Markgraf, M.A., Professor.
*Mathematics and Natural Philosophy.*—Alexander Johnson, LL.D., Professor.
*French.*—P. J. Darey, M.A., Professor.
*Civil Engineering and Applied Mechanics.*—G. F. Armstrong, M.A., C.E., F.G.S., Prof.
*Practical Chemistry.*—Gilbert P. Girdwood, M.D., Professor.
*Assaying and Mining.*—Bernard I. Harrington, B.A., Ph.D., Lecturer.

The courses of study in this Department are designed to afford a complete preliminary training of a Technical as well as a Theoretical nature, for such students as are preparing to enter any of the various branches of the Professions of Engineering and Surveying, or are destined to be engaged in Assaying, Practical Chemistry, and the higher forms of Manufacturing Art.

Three distinct courses of study are provided, each of which extends over three, or under certain conditions (§I) two years, and is specially adapted to the prospective pursuits of the student.

(1) Civil and Mechanical Engineering.
(2) Assaying and Mining.
(3) Practical Chemistry.

The Degrees conferred by the University upon such Undergraduates of this Department as shall fulfil the conditions and pass the examinations hereinafter stated (§IV.) will be, in the first instance, "Bachelor of Applied Science," mention being made in the Diploma of the particular course of study pursued; and subsequently the degree of "Master of Engineering" on those who have pursued Course 1st, and of "Master of Applied Science" on those who have pursued either of the remaining Courses (2 and 3).

## § I. MATRICULATION AND ADMISSION.

Candidates for Matriculation must present themselves for examination on the 15th September, 1873. They may, however, be admitted at a later period of the Session upon special application, and if prepared to take their places in the classes in progress.

FOR ENTRANCE INTO THE JUNIOR YEAR, the subjects for Examination will be:

*Mathematics.*—Arithmetic; Algebra, to Simple Equations inclusive; Euclid's Elements, Books I., II., III.

*English.*—Writing from Dictation.

Candidates may enter in the Second or Middle year, and so reduce the course necessary for the degree in Applied Science, from three to two years, if competent to pass a satisfactory examination in the following subjects, or if they have passed in Class 1st or 2nd in the said subjects in the Intermediate Examinations of the University. In addition to this, those who intend to pursue Course 1st, must satisfy the Professor of Engineering that they possess a reasonable knowledge of the elements of Surveying and Levelling and of Linear Drawing, as in Cassels' Text Book of Surveying and Davidson's Linear Drawing.

*Mathematics.*—

*Euclid.*—Books I., II., III., IV., VI., with Defs. of Book V. (omitting propositions 27, 28, 29, of Book VI.)

*Algebra.*—To end of Quadratic Equations (Colenso's Alg.)

*Trigonometry.*—Galbraith and Haughton's Trigonometry, Chap. 1, 2, 3, 4, 6 to beginning of numerical solution of plane triangles.

*Arithmetic.*—Ordinary rules.—Proportion, Interest, Discount, &c., Vulgar and Decimal Fractions, Square Root.

*English.*—Writing from dictation.

*Chemistry.*—Inorganic as in Roscoe's Elements, (or the Student must take this subject in the Middle Year.)

Candidates must be prepared to pass in one or the other of the above Examinations at the beginning of the session. Students who have passed in Class 1st or 2nd in the above subjects, in the Intermediate Examination of the University, may be admitted without further examination in such subjects.

Occasional Students may be admitted to the Technical Classes upon payment of special fees, (§VIII.)

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## § II. EXHIBITION AND PRIZES.

### I. THE SCOTT EXHIBITION.

Founded by the Caledonian Society of Montreal in commemoration of the centenary of Sir Walter Scott.

This Exhibition is open to Students who have passed the examinations of the middle year. The subjects of Examination are the following:

*Mathematics.*—Differential Calculus (Hall), Chaps. 1 to 8 inclusive; Chaps. 12 and 14; Integral Calculus (Hall), Chaps. 1 to 6 inclusive. Analytic Geometry, (Salmon's Conic Sections); Hind's Plane and Spherical Trigonometry; Salmon's Modern Higher Algebra, (first six chapters); Todhunter's Theory of Equations; all the pure Mathematics of ordinary course in Arts, with remainder of Drew's Conic Sections and of Colenso's Algebra,

*Engineering and Surveying.*—The course of the two preceding years, with a Report on some Engineering work.

*English.*—English Grammar—Bain's.
English Composition.
History of England—Smith's Student's Hume; Hallam's Middle Ages Chaps. VIII., IX.

*English Literature.*—Collier; Johnson's Lives of the Poets.

*Zoology.*—Dawson's Hand-Book, Invertebrates and more especially fossil animals.

The next examination will be held on September 15th, 1873, and following days.

2. AN EXEMPTION FROM GENERAL AND SPECIAL SESSIONAL FEES.

This exemption carries with it the duty of assisting the Professor in the field, in such operations in Surveying, Levelling and Setting-out as shall be undertaken by the Engineering Classes.

Candidates must be of at least the second year's standing, and have passed an examination in the subjects of the Sessional Examinations of the first year with credit. The Professor will then select from among such candidates by means of a *viva voca* and written examination, the one who shall display the most intimate acquaintance with the practical operations of Surveying and Levelling. The election to this Exemption will be for one year only; but a previous holding will not disqualify for re-election. The next election will be made in November, 1873.

3. Prizes will be awarded after each Sessional Examination to such Matriculated Students as have passed the Examinations in all the subjects of one of the regular courses of study, and have taken the first rank in the Examinations in one of the subjects.

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## § III. COURSES OF STUDY.

The following are the courses of study arranged for the approaching Session, 1873-4:

### 1. COURSE OF CIVIL ENGINEERING AND SURVEYING.

*Junior Year.*—Ordinary Mathematics of the first year in Arts, (with Honour Mathematics as far as practicable); Chemistry; English Language and Literature; French or German; Linear Drawing; Surveying and Mensuration, with use of Instruments.

*Middle Year.*—Ordinary Mathematics and Mathematical Physics of the Second and Third Years in Arts (with Honour Mathematics of the Second Year as far as practicable); Experimental Physics; Zoology; French or German; Drawing—Orthographic and Isometrical Projection; Levelling; Art of Construction.

*Senior Year.*—Mathematical Physics (Honour Course of Third year in Arts, optional.) Experimental Physics; Geology and Mineralogy; French or German; Applied Mechanics and Principles of Mechanism; Drawing—Constructive and Mechanical; Construction; Designing and Estimates.

## 2. COURSE OF MINING ENGINEERING AND ASSAYING.

*Junor Year.*—Same as Junior Year of Civil Engineering Course.

*Midlle Year.*—Ordinary Mathematics and Mathematical Physics of 2d and 3d years in Arts; Experimental Physics; Zoology; Geology and Mineralogy; French or German; Drawing—Orthographic and Isometric Projection; Levelling; Construction (in part); Use of Blowpipe; Assaying.

*Senir Year.*—Geology (Honour Course); French or German; Experimental Physics; Drawing of Geological Maps and Sections, and plans of Mines; Mining and Mineral Surveying; Metallurgy; Applied Mechanics and Principles of Mechanism.

## 3. COURSE OF PRACTICAL CHEMISTRY AND ASSAYING.

*Junor Year.*--Same as above (with Botany.)

*Middle Year.*--Ordinary Mathematics of Second Year in Arts; Experimental Physics; Botany, (unless taken in the Junior Year); Zoology; French or German; Practical Chemistry.

*Senor Year.*--Mathematical Physics; Experimental Physics; Geology and Mineralogy; French or German; Metallurgy; Assaying,

### OBSERVATORY,

Undergraduates taking any of the above courses may receive instruction in Meteorological and Magnetical observations from Dr. Smallwood, in the College Observatory.

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## § IV. EXAMINATIONS.

### COLLEGE EXAMINATIONS.

There will be a Sessional examination at the end of each year, and also a Christmas examination, in the same manner as provided for Undergraduates in Arts.

### UNIVERSITY EXAMINATIONS.

#### I. FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

Candidates must pass the Sessional Examinations of the Junior and Middle year, or, if admitted in the Middle year, of that year only. They must also pass a Final Examination at the end of the Third Year, in all the subjects of that year, in addition to a special examination in Mathematics, in case of those who graduate in the course of Civil and Mechanical Engineering.

Graduates in Civil Engineering of this University may obtain this Degree and a Diploma in exchange for that which they at present hold, upon application to the Corporation through the Registrar, and upon payment of a fee of $3.

#### II. FOR THE DEGREE OF MASTER OF ENGINEERING.

Candidates must be Bachelors in Applied Science of at least three years' standing, and must produce satisfactory certificates of having been engaged during that time upon bonâ fide work in either the Civil or Mechanical Branch of Engineering.

They must pass with credit an examination which will extend over the general Theory and Practice of Engineering, in which papers will be set having special reference to that particular branch upon which they have during the three preceeding years, been engaged.

The examination will be held once in each year in the second week of the month of December, and will be partly written and partly *viva voce*.

Notice of the intention of a Candidate to offer himself at any examination for this degree must be sent in, together with the necessary Certificates and Fees, not less than two calendar months before such Examination is to be held.

III. FOR THE DEGREE OF MASTER OF APPLIED SCIENCE.

Candidates must be Bachelors of Applied Science of at least three year's standing, must present certificates of having been employed during that time under competent guidance in some branch of Scientific Work, and must pass with credit an examination in the Theory and Practice of those Branches of Scientific Work in which they may have been engaged. The other conditions as under the last heading.

IV. FOR THE DEGREE OF B. A. WITH THAT OF BACHELOR OF APPLIED SCIENCE.

Undergraduates in Arts who have passed the Intermediate examination may (if qualified under §1,) take the Middle and Senior years of either of the courses in Practical Science along with the Third and Fourth year in Arts, and may in the third and fourth year omit Mental and Moral Philosophy and may substitute French and German for Latin and Greek. Spanish may be taken instead of French or German.

In addition to the subjects of the Science course, they will be required to satisfy the Examiners in the following subjects; viz: Mathematics Natural Science, Experimental Physics and Modern Languages.

Students in Arts desirous of availing themselves of these privileges are required to take a preliminary course of Linear Drawing in the second year.

Students proceeding to the double degree, will enjoy all privileges with reference to Scholarships, Exhibitions, Prizes and Honours, in the same manner as Students in Arts.

Such Students may by permission of the Faculty be candidates for B. A. Honours, and may be allowed to take the Examination for B. A. in their fourth year in Arts, and to take the Examination for the degree in Practical Science in the following year; or they may graduate in the Science course alone in the fourth year, and graduate in Arts in the following year. In the latter case they shall not compete for medals with the regular Students of the year.

Undergraduates in Arts of the third or fourth years, or Graduates of any University entering the Department of Practical Science, may at the discretion of the Professors be exempted from such lectures in that Department as they may have previously attended as Students in Arts, but must pass all of the examinations.

## § VI. ATTENDANCE AND CONDUCT.

The regulations under this head are in all respects similar to those in force for Undergraduates in Arts.

## § VII. LIBRARY AND MUSEUM.

Students in this Department will have the same privileges with reference to the Library and Museum, with Undergraduates in Arts.

## § VIII. FEES AND RESIDENCE.

*In the Course of Engineering.*—Classes in Arts, $20; Classes in Engineering, Surveying and Drawing, $25; Library, $2. In all $47 for each Session.

*In the Course of Mining Engineering.*—Classes in Arts, $20; Professional Classes, Junior Year, $25; Middle and Senior Years, $35; Library, $2. In all $47 to $57 for each Session.

*In the Course of Practical Chemistry.*—Classes in Arts, S20; Professional Classes, $25; Library, $2. In all $47 for each Session.

*Matriculation Fee.*—(In the first year only,) $4.

*Fee for Degree of Bachelor of Applied Science.*—$10.

*Fee for Master of Engineering or Master of Applied Science.*—$50.

Occasional Students may be admitted to the Lectures in Civil Engineering or Assaying; but will be required to pay an extra fee of $20, in addition to the fee of $25 in Engineering, and $5 for entrance and use of the Library.

Laboratory Students are required to purchase their own chemicals, &c. The larger articles of apparatus will be supplied by the Laboratory, the Students paying $6 per Session for their use, and being responsible for breakage.

Students are permitted to board in the city; or in the College under the immediate superintendence of the Rev. Prof. Cornish.

## § IX. COURSES OF LECTURES.

[For the Lectures in Mathematics, Physics, Natural Science, Modern Languages, &c., see under Faculty of Arts, ante.]

### 1. Civil and Mechanical Engineering.

Professor.—G. F. Armstrong, M.A., C.E., F.G.S.

#### I. *Surveying and Levelling.*

The object aimed at in this course is to afford the Student such instruction as will cause him to be of immediate service upon entering the office of the Engineer or the Surveyor, and the Lectures embrace the general principles of this important branch of Engineering, discussed under the heads of Chain and Trigonometrical Surveying, as applied to ordinary as well as special operations in the Field.

The construction, adjustment, and use of the various angular and levelling instruments is fully described and illustrated.

Concurrently with the Lectures, a course of Field-work, under the superintendence of the Professor, is pursued by the class, during which actual surveys are made and levels taken, to be afterwards plotted, and the methods of the setting out of curves is practically demonstrated.

### II. *Geometrical Drawing.*

*Junior Year.*--The course of instruction comprises, (1) the Elementary parts of the Geometrical construction of plane figures and the principles of the Ellipse, Cycloids, Involutes and such other curves as occur in the Mechanical Arts; —in Geering, Arches and the like :--(2) Similar constructions in Solid Geometry, or the projections in plan and elevation of various objects, and their development.

*Middle Year.*--(1) The interpenetration of solids, and the delineation of objects in Isometrical Projection :--(2) Perspective Projection, based upon its geometrical principles, as far as the elements of angular perspective.

*Senior Year.*--The more advanced parts of Perspective Projection and Descriptive Geometry.

### III. *Construction.*

The subjects of the Lectures may be summed up as follows :—The strength and fitness of materials : the Engineering of Earth-work, Masonry, Carpentry, Structures in Iron, Common-Roads, Railways, Bridges and Viaducts, Tunnels, Canals, Works of Drainage, Irrigation and Water Supply, Lighthouses, River, Harbour and Sea Works.

### IV. *Practical Mechanics.*

In this course of study the analytical principles of Statics and Dynamics are applied to the determination of the conditions of the equilibrium and stability of structures in general, and to the investigation of the motion of rigid bodies; particular attention being paid to the estimation of stress in roofs and bridges, the resistance of dams and retaining walls, and to the theory of work and the motion of machines.

### V. *Principles of Mechanism.*

The Lectures in this subject are designed to afford the Student an insight, (1) into the principles of the various elementary contrivances employed by mechanicians to communicate and convert motion of one kind into another, apart from the consideration of *force ;* and (2) into the mode of combining such simple forms in the construction of different machines, as exemplified in the Steam Engine, Lathe, Drill, Planing Machine, &c.

The Lectures are illustrated by means of a collection of working models.

### VI. *Designing and Estimates.*

The instruction given under this head is intended to enable the Student to apply practically such knowledge as has been obtained from the different Courses of Lectures; and consists in the design, specification, and estimating for such works as are usually undertaken by the Engineer.

Each Student works independently, under the personal supervision of the Professor, and makes such drawings and calculations as would be needed were the structure designed to be actually carried out.

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## 2. Assaying, Mining and Metallurgy.

*Lecturer.*—B. J. Harrington, B.A., Ph.D.

### *I. Use of the Blowpipe and Assaying.*—(Middle Year.)

*Use of the Blowpipe.*—The object of this Course is to enable Students, by means of the blowpipe and a few simple reagents, to detect the nature of various minerals or ores. On account of the small amount of apparatus required, and the rapidity with which accurate results may be arrived at, a knowledge of this subject will be found most useful to those engaged in geological or other field-work.

*Assaying.*—The Course in Assaying includes lectures and practical work. Assays are made, by various methods, of gold, silver, copper, lead, iron and other ores. Examinations are also made of coal, peat, clay, &c.

### *II. Mining and Metallurgy.*—(Senior Year.)

*Mining.*—Among the more important subjects taken up in this Course, the following may be mentioned:—Blasting and the nature and use of different Explosives; Quarrying; Hydraulic Mining and Sluicing; Boring and Boring Machinery; Sinking, Timbering and Tubbing of Shafts; Driving and Timbering of Levels; Underground Conveyance and Hoisting; Drainage and Pumping; Lighting and Ventilation of Mines; Special methods of Exploitation employed in the working of metalliferous deposits or of Coal seams; Dressing of Ores by means of hammers, stamps, rollers, riddles, buddles, &c.

*Metallurgy.*—A short Course of lectures, illustrated by a series of Ores and Metallurgical Products. The general properties of the metals and the nature of fuels, fire-clays, &c., are first discussed; and afterwards, the more important metals and the methods of obtaining them from their ores, by wet or dry processes, taken up in detail.

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### 3. Practical Chemistry.

Professor.—Gilbert P. Girdwood, M.D.

This Course will be conducted in the large and commodious Laboratory recently constructed for the Medical Faculty. It will include a general Course of Qualitative and Quantitative Analysis, adopted to the previous training of the Student; leading in the latter part of the Course to special studies adapted to his future pursuits.

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## § X. LIST OF TEXT-BOOKS AND BOOKS RECOMMENDED FOR REFERENCE.

### COURSE OF CIVIL AND MECHANICAL ENGINEERING.

### 1.—*Text-books, required for the Classes.*

*First Year, Surveying and Levelling.*—Castle's "Elementary Text-Book," and Baker's "Rudimentary Treatise on Land and Engineering Surveying."

*Drawing.*—Davidson's "Linear Drawing," (Cassel's Technical Manuals.)

*Second Year, Construction.*—Rankine's "Civil Engineering,"—Davidson's "Elements of Building Construction."

*Drawing.*—Davidson's "Orthographic and Isometrical Projection."

*Third Year, Applied Mechanics.*—Twisden's "Practical Mechanics."—Goodeve's "Elements of Mechanism."

*Drawing.*—Davidson's "Practical Perspective" and "Drawing for Machinists."

### 2.—*Books of Reference, recommended for reference, but not necessary for the Classes.*

*Railway Construction.*—†Haskoll's "Assistant Engineer's Railway Guide,"—Dempsey's "Practical Railway Engineer."

*Hydraulics.*—Stevenson's "Harbours," Rennie's Harbours, Stevenson's "Skerryvore Lighthouse," Humber "On the water supply of Cities and Towns,"—Hughes' "Water supply of Cities and Towns," Burnell's "Hydraulic engineering," Moncrief "On irrigation," Neville's "Hydraulic Tables,"› † Haskoll's "Engineering Fieldwork."

*Girder Bridges and Roofs.*—*Latham's "Girder Bridges,"—Unwin's "Iron Bridges and Roofs,"—Shield's "Strains on Iron Work Structures," Maynard's "Bridges and Roofs,—Campin's Roofs,"—†Humber's "Practical Treatise on cast and wrought Iron Bridges."

*Strength of Materials.*—Barlow's "Treatise on the strength of Materials," (Humber-†Tredgold and Hodgkinson "On the strength of cast Iron."

*Specifications and Estimates.*—†Donaldson's "Handbook of Specifications,"—Haskoll's "Civil Engineers Estimate and Price Book,"—Graham's "Manual on Earthwork," Bidder's "Tables on Earthwork."

*Surveying and Levelling.*—†Butler Williams' "Practical Geodsey,"—*Castle's "Engineering Fieldwork,"—†Gillespie's "Land Surveying,"—†Simm's "Principles and Practice of Levelling,"—†Bruff's "Engineering Fieldwork."

*Mechanical Engineering.*—Campin's "Treatise on Mechanical Engineering,"—Rankine's "Prime Movers,"—Fairburn "On Boilers,"—†Willis', "Principles of Mechanism,"—Grantham's "Iron-Ship Building,"—†Fairburn's "Iron-Ship Building."

*General.*—"†Transactions of the Institute of Civil Engineers of Great Britain."—Weale's "Series of Rudimentary Treatises" (Classes of Engineering and Architecture,)—*Humber's "Series of Modern Engineering,"—†Moseley's "Mechanical Principles of Engineering,"—†"Spon's Dictionary of Engineering,"—†Smeaton's "Reports,"—†Simm's "Tunnelling,"—Buck's "Oblique Bridges,"—†Tredgold's "Carpentry,"—Nicholson's "Carpenters' Guide," Reid's "Portland Cement,"—Molesworth's "Pocket Book of Engineering Formulæ,"—†Sopwith's "Isometrical Projection."

*Expensive or out of Print.

†In the College Library.

## COURSE OF MINING ENGINEERING AND ASSAYING.

*Books of Reference in Assaying.*

Kerl's Metallurgishche Probirkunst. Mitchell's Manual.

*Text-Book in Metallurgy.* — Metals: their properties and treatment. By Charles Lowdon Bloxam.

*Books of reference on Metallurgy.*—Crookes and Röhrig's Metallurgy, Percy's Metallurgy of Lead. Bauerman's Metallurgy of Iron.

*Books of reference, on Mining and Ore Dressing.*

(1) Concentration and Chlorination.—Kustel.
(2) Rittinger's Aufbereitung.
(3) Traité du Gisement et de la Recherche des Mineraux Utiles.—Burat.
(4) Ponson's Traité de la Houille.
(5) Coal and Coal Mining.—Warrington Smyth.

*Text-Book on Blowpipe Analysis.*—Elderhorst's Blowpipe Analysis.

# Lectures in the Department of Practical Science in the Faculty of Arts.

## SESSION 1873-4.

### JUNIOR YEAR.

| Hours. | Monday. | Tuesday. | Wednesday | Thursday. | Friday. |
|---|---|---|---|---|---|
| 9 | | †Mathematics, (*a*) | *French, | †Mathematics, (*a*) | Mathematics, |
| 10 | Mathematics, | | | | English, |
| 11 | English, | *French, | English, | *French, | Elementary Chemistry. |
| 12 | Elementary Chemistry. | *German, | Mathematics, | *German, | |
| 1 | | | | | Drawing, |
| 2 | | Drawing, | | Surveying. (*c*) | |
| 3 | Surveying. (*c*) | | | | |

### MIDDLE YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | †Mathematics, ‡Geology, | Mathematics, (*b*) | *German, | Mathematics, (*b*) | ‡Geology, *German, |
| 10 | *German, | | †Mathematical Physics, | | *French, |
| 11 | Mathematical Physics, | Zoology, | Mathematics, | Zoology, | Mathematical Physics, |
| 12 | *French, | Experimental Physics, (*c*) | ‡Geology, *French, | Experimental Physics, (*c*) | |
| 1 | | | | | Drawing or ‡Assaying. (*c*) |
| 2 | †Assaying, (*c*) | Drawing, | ‡Assaying. (*c*) | | |
| 3 | Surveying & Levelling. (*c*) | | Construction. (*c*) | Surveying & Levelling. (*c*) | |

### SENIOR YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | Geology, | *German, | | *German, | Geology, |
| 10 | ‡Geology, | †Mathematical Physics, | | †Mathematical Physics, | ‡Geology, |
| 11 | *French, | | | | *French, |
| 12 | | Experimental Physics, (*c*) | Geology, | Experimental Physics, (*c*) | |
| 1 | | | | | |
| 2 | Designing & Estimates, (*c*) | Drawing. | Applied Mechanics, (*c*) | Designing & Estimates. (*c*) | Drawing, |
| 3 | ‡Mining. (*c*) | | Construction or ‡Metal'gy. (*c*) | | ‡Mining. (*c*) |

* Students may take either French or German.

† Optional.

‡ To Students in Mining, Engineering and Assaying.

(*a*) Second Term only.

(*b*) First Term only.

(*c*) From November 1st.

Students in Practical Chemistry will take that subject at 2 P. M. in the middle year, and Assaying at 2 P. M. in the senior year, and will take the Lectures in Botany in the Junior or Middle year.

Students are recommended to attend the class of Logic, and will receive a certificate on passing the examination.

# Faculty of Medicine.

The Principal, (ex-officio.)
Professors,—Campbell.
Scott.
Wright.
Howard.
McCallum.
Craik.
Fenwick.
Drake.
Girdwood.
Ross.
Dean of the Faculty.—G. W. Campbell, A. M., M. D.
Registrar.—R. Craik, M. D.
Demonstrator.—W. Fuller, M. D.,
Matriculation Examiner of the Faculty.—Professor H. Aspinwall Howe, LL. D.

The forty-first Session of the Medical Faculty of McGill University will be opened on Wednesday 1st October 1873, with a general Introductory Lecture at 11 a.m. The regular lectures will commence on Thursday the 2nd Oct., at the hours specified in the time table, and will be continued during the six months following.

It affords the Faculty much pleasure to be able to announce that the beautiful and commodious new building erected by the Governors of the University for the use of the Medical Faculty, has been completed and was occupied by the Faculty during the last Session.

The following extracts from Professor Wright's opening lecture, delivered in the new building at the commencement of last Session, will convey some idea of the magnitude and completeness of the edifice.

"The stately building wherein we are met, has been built by the Governors of the University out of the funds at their disposal at a cost of $27,000, in addition to which sum the Dean and the Members of the Faculty of Medicine have contributed several thousand dollars to complete the internal fittings on a corresponding scale."

"The building is 80 feet front by 84 feet 8 inches deep, and 48 feet high to the top of the cornice, with a further elevation of 7 feet in the roof. The latter is a half mansard, broken by three pediments, and covered with slate. The walls are solidly built of cut stone."

"On the east side, facing University street, is the students' entrance, leading into the basement. The lobby lands into a passage which, like the

other halls, is 12 feet wide. On its left is a waiting-room, 30 feet by 32 feet 6 inches, furnished with chairs and tables. It is intended for resort during the intervals between lectures, where you may fill up your notes or otherwise profitably occupy yourselves. A strip is partitioned off and fitted to serve as a cloak room. On the right are the apartments of the care-taker, and on this floor are also spare rooms, closes, furnace and fuel cellar. The apartments having floors are based with concrete."

"On the south side is the main entrance, facing Sherbrooke street. Having ascended the flight of stairs in front and crossed the lobby, you first meet two apartments, one on either side, * * * * * * * for a Library and Museum respectively. Behind these are the Chemical class-rooms, with the Professor's room; the former 30 feet by 46 feet, seated to hold 190 comfortably; and the Laboratory, 32 feet 6 inches by 32 feet, for the Practical Chemistry class. It is provided with furnace, balance room, and all other necessary requirements. This floor, 'the ground floor,' is also approached by a short stair running up from below."

"On 'the first floor,' or one above the last, is the General Class-room, on the right hand side of the landing. It is 33 feet wide by 43 feet 2 inches deep. It has 11 tiers of seats, arranged as in the other class-rooms, in trilateral shape, with desks and backs, regularly graded, and able to contain 208 persons. Into it two doors open, the uppermost one being exclusively for the convenience of students. Close by are two side rooms, one for the use of Professors, the other for the Materia Medica Cabinet. On the opposite side is another class-room, the Anatomical, 32 feet 10 inches by 43 feet, and seated for 180. It is supplied with seven tiers of seats, and is well lighted with front and side windows and glazed sky-light. Behind is the Dissecting Room, 56 feet 10 inches long, and 30 feet 2 inches broad, provided with sink, lift, as well as all other essential appointments, and having its floor covered with lead. At its end are two small rooms, one for the Professor, and the other, which opens into it, for the Demonstrator."

"The building will be warmed by hot water in circulation through coils and pipes of iron. Fittings are placed wherever gas may be needed. Means have been devised to ensure sufficient ventlation, and the acoustic adaptation of the Lecture rooms has also been regarded. In short, the whole is so designed that, when completed, the equal will not be found in any other medical school in the Dominion."

The class tickets for the various courses are accepted as qualifying candidates for examination before the Universities and Colleges of Great Britain and Ireland, the Medical Boards of the Army and Navy, and the College of Physicians and Surgeons of Ontario.

To meet the circumstances of General Practitioners in British North America where there is no division of the profession into Physicians and Surgeons exclusively, the degree awarded upon graduation is that of "Doctor of Medicine and Master of Surgery." This designation is also appropriate, as it agrees with the general nature and character of the previous curriculum demanded of the candidates for this double rank, as is fully specified hereafter. The degree is received by the College of Physicians and Surgeons of Lower Canada.

To intending students desirous of information upon the best manner of pursuing their studies, the following suggestions are made by the Faculty:—

Exclusively of general education, professional reading for some time previously to matriculation, is advised as a preparation, whereby familiarity with technical terms will be gained, and an insight obtained into the subjects to be brought under notice during lectures.

The student is advised to pass the Matriculation Examination in March, so that his four years of pupilage may expire at the close of a winter session. A certificate of having passed such examination before the examiners appointed by the College of Physicians and Surgeons of Ontario will be accepted by this University.

While the University regulations permit a student to graduate after three years' attendance upon lectures, provided he furnish proof that he has studied one year in addition with a private practitioner, yet he is recommended to devote four sessions to systematic instruction, as less time is scarcely sufficient for acquiring a fair knowledge of the many subjects which compose the curriculum.

Attention is recommended to be given during the First Session to the primary branches only; during the Second Session an increase is proper, and two of the final courses may be profitably conjoined with such of the primary as are required; while during the remaining period the curiculum is to be completed.

As daily bed-side instruction is essential to the student of medicine, the undergraduate is earnestly advised to spend at least the last two summers in availing himself of the opportunities afforded by the large hospitals—general and lying in—of our city, in which, moreover, dresserships should be obtained.

Enregistration is necessary every Session; it is required upon entrance, or as soon afterwards as possible, and always before any class-tickets are procured. The time fixed for closing the Register is annually on the fifteenth of November.

Class-tickets are payable in advance, and if not taken out during the current session, will not be granted after its expiration.

A Medical Session or *annus medicus*, consists of enregistration and attendance upon at least two six months' courses or one six months' and two three months' courses.

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## COURSES OF LECTURES.

1. ANATOMY.—[Prof Scott.] The importance of Anatomy, both descriptive and in its relations to Medicine and Surgery, is duly considered by the Professor, who employs chiefly the fresh subject in the illustration of the lectures, aided, however, by dried preparations, wax models, plaster casts of dissections, plates, &c., the full size of life.

The Dissecting Room, which is open from 8 a. m. to 10 p. m.—is large, well ventilated and supplied with every convenience, such as gas, water, &c., &c. It is under the direct supervision of the Professor of Anatomy aided by the Demonstrator. The Demonstrator is constantly in attendance during certain hours every day, to direct and instruct students in Practical Anatomy, and the Professor also daily visits the Room to superintend and examine Students engaged in dissection. Abundance of fresh material for dissection will be provided.

2. CHEMISTRY.—[Prof. Craik]—Inorganic Chemistry is fully treated: and a large portion of the course is devoted to Organic Chemistry and its relations to Physiology. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the class. For experimental illustration, abundant apparatus is possessed by the Professor, among which may be enumerated, a powerful Air Pump—Oxy-Hydrogen Microscope—Polariscope—extensive series of Crystal Models—Electrical and Galvanic apparatus, Steam engine, &c., &c.

3. MATERIA MEDICA.—[Prof. Wright]—This course is illustrated from a cabinet of Pharmacological objects; by plates of Medicinal Plants [Wagner, Roque, Stevenson and Churchill]; by dried specimens; by carefully prepared Microscopical objects, &c., &c; Analytical experiments with the ordinary reagents are also shown; and diagrams with other illustrations are used

4. INSTITUTES OF MEDICINE.—[Prof. Drake]—This course comprises Histology, Physiology, General Pathology and Therapeutics. The lectures are illustrated by apparatus, diagrams, plates, and Microscopic preparations of the various tissues, and by Pathological specimens from the Museum.

5. PRACTICE OF MEDICINE.—[Prof. Howard.]—The extensive serie of plates contained in the Library, (Lebert, Cruveilhier, Carswell, Hope, Alibert, Willan, Bateman, &c.,) will be employed; also Morbid preparations and models of diseased parts.

6. SURGERY.—[Prof. Campbell.]—Divided into Principles and Practice, including Surgical Anatomy and Operative Surgery, exhibited on the subject. The various surgical instruments and apparatus exhibited, and their uses and applications explained and practically illustrated.

7. MIDWIFERY.—[Prof. McCallum.]—Including diseases of females and infants, illustrated by a series of drawings on a large scale, by humid preparations; by models in wax; by the use of the artificial Pelvis, and by cases in the wards of the Lying-in Hospital.

8. MEDICAL JURISPRUDENCE.—[Prof. Fenwick.]—Includes Toxicology. The modes of testing for poisons are exhibited, and post-mortem appearances illustrated by plates. Insanity, Public Hygiene and Medical Police also form part of the course.

9. CLINICAL SURGERY.—[Prof. Fenwick.]—The lectures in this course are in illustration of Surgical cases under observation in the Wards of the General Hospital. Bed-side instruction is followed up daily and all operations are performed in the presence of the class. The lectures are illustrated by cases under surgical treatment, by plates, surgical apparatus, morbid specimens, models and the use of the microscope.

10. CLINICAL MEDICINE.—[Prof. Ross.]—Taught by lectures and at the bed-side—Physical Diagnosis is taught practically, and each pupil required to take part in it. Examination of the urine, chemical and microscopical, explained and illustrated.

11. BOTANY AND ZOOLOGY.—[Prof. Dawson.]—The course in Botany is illustrated by specimens, diagrams, models, and the microscope, and special instruction will be given in microscopical examination of tissues. Students have access without any additional fee to the lectures in Zoology in the Faculty of Arts, and to the Natural History Museum of the University and the Museum of the Natural History Society of Montreal.

Prizes will be awarded at the end of each Session, to Students in Botany of the class of the previous Session, for the best *Named Collections* illustrative of the Flora of Canada. The collections, or duplicates of them to remain in the College Museum.

12. PRACTICAL CHEMISTRY.—[Prof. Girdwood.]—Thorough instruction is given in the different departments of Practical Chemistry in the splendid new Laboratory of the Faculty under the personal supervision of the Professor; and the course includes blowpipe manipulations, qualitative and quantitive analysis, toxicological investigation, &c., &c.

SUMMER COURSE OF PRACTICAL CHEMISTRY.—For the convenience of those students who pass the summer months in the city, a summer course of Practical Chemistry has been arranged, consisting of the same number of lectures and demonstrations, and being in every way equivalent to the usual winter course.

### SUMMER COURSE OF CLINICAL INSTRUCTION.

In order that Medical Students may avail themselves of the unusual opportunities for the practical study of disease afforded by the Hospitals of this city, the special course of Clinical instruction during the Summer months will be continued, and all Hospital Students will be permitted to attend it without charge. In addition to the above, daily bed-side instruction will be given during the months of July, August and September in the wards of the General Hospital by the attending Physicians, Professors Wright and McCallum.

The above course of Clinical instruction does not form a necessary part of the curriculum, but has been established to allow the student facilities for acquiring practical knowledge of disease, when his time is not otherwise occupied in attendance upon lectures.

### COURSE OF LECTURES UPON HYGIENE.

A course of twelve lectures upon Hygiene and Public Health will be delivered this summer by T. G. Roddick, M. D. They will commence during the first week in July, and as it is hoped that they may prove of much value to Medical Students- All who may have the opportunity of attending are recommended to do so.

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## LIBRARY AND MUSEUM.

The Library contains upwards of 4,000 volumes, including the most useful books of reference, as well as the most elementary; the works of the older authors as well as the most recent. It is open to Students without charge, under necessary regulations for the care of the books. The Museum contains a large number of preparations, chiefly Pathological; also wax and papier-mache models.

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## HOSPITALS.

The Montreal General Hospital affords ample means for the instruction of Students in Clinical Medicine and Surgery. The daily number of beds occupied by patients averages from 130 to 140, and during epidemic visitations has reached a much higher number. In addition to the Hos-

pital proper, which is devoted to Medical and Surgical cases, there is a detached Hospital in which the several forms of Fever may be studied. The Governors are about erecting an hospital for children contiguous to the Reid Wing of the present building, so that the students will have an opportunity of becoming familiar with nearly all the diseases of suffering humanity, and with the peculiarities imparted to them by infancy, adolescence, maturity and declining age.

The large number of out-door patients that are treated in the Hospital, averaging from sixty to seventy daily—supply illustrations of most of the diseases of infants and children, of very many of the eye and skin, and of those chronic and ill-defined ailments, which, as they do not require admission to the wards of an hospital, would not otherwise come under the observation of the student, although, on account of their variety and frequency of great importance to the Physician.

The shipping contributes a great many examples of accidents and surgical cases.

The fee for six months' ticket is Eight Dollars; for perpetual Twenty Dollars.

The Operating Room [used also for a lecture room] is so constructed as to suit the convenience of the students in obtaining a good view of the operations.

An abstract of the Hospital report for last year is appended to this circular.

The University Lying-in Hospital is under the direction of the Professor of Midwifery. Students who have already attended one course of his lectures, are furnished with cases in rotation; and they are advised to attend this Institution as much as possible during the Summer, when as there are as many patients and not so many pupils as in winter, a larger proportion of cases falls to the share of each. Moreover, in this way more attention can be given to their duties during the winter. The fee for a six months' ticket is Five Dollars.

By the kindness of the authorities of the Grand Trunk and other Railways, arrangements have been made by which certified students of this University will be granted return tickets from Montreal to any part of their lines at greatly reduced rates; the said tickets to hold good from the close of one session to the beginning of the next. Return tickets will also be granted for the Christmas vacation.

## PAST SESSION.

The total number of Students in the past Session was 154, of whom there were from Ontario 85, from Quebec 53, Nova Scotia 3, New Brunswick 2, Prince Edward Island 1, United States 10.

The number of Students who passed their Primary Examination, which includes Anatomy, Chemistry, Materia Medica, Institutes of Medicine, and Botany or Zoology, was 35, alphabetically arranged as follows:

| *Name.* | *Residence.* |
|---|---|
| Bigelow, Horatio R | Boston, Mass., U. S. |
| Cameron, James C | Montreal, Quebec. |
| Chevalier, Napoleon E | St. Gregoire le Grand, Quebec. |
| Cline, John D., B.A | Cornwall, Ontario. |
| Cutter, Frederick A | Hopkinton, New York, U. S. |
| Harvey, Wellman A | Newbridge, Ontario. |
| Henderson, Edward G | Belleville, " |
| Hickey, Samuel A., B.A | Aultsville, " |
| Hockridge, Thomas G | Bradford, " |
| Hume, William L | Leeds, Quebec. |
| Jones, Charles R | Hastings, Ontario. |
| Jones, George Nelson | St. Andrew's Quebec. |
| MacDonald, Roderick A | Cornwall, Ontario. |
| McBain, John | Williamstown, Ontario. |
| McCormick, Andrew G | Durham, Quebec. |
| McDonnell, Alexander R | Loch Garry, Ontario. |
| McMillan, Æneas J | Edwardsburgh, Ontario. |
| Mines, William W | Montreal, Quebec. |
| Molson, William A | " " |
| Monk, George Henry | " " |
| Moore, Charles S | London, Ontario. |
| Moore, Jehiel T | Holbrook, " |
| Norton, Thomas | Montreal, Quebec. |
| Pattee, Richard P | Hawkesbury, Ontario. |
| Phelan James | Stratford, " |
| Prosser, William O | Lunenburg, " |
| Rattray, James C | Portage du Fort, Quebec. |
| Reddick, Robert | Prescott, Ontario. |
| Ritchie, John L | Halifax, Nova Scotia. |
| Rogers, Amos | Bradford, Ontario. |
| Sinclair, Coll | St. Thomas, " |
| Speer, Andrew M | Richmond, Quebec. |
| Wales, Benjamin N | St. Andrews, " |
| Wallace, Isaac W | Milton, " |
| Woolway, Christopher J | St. Mary's, Ont. |

The number of Students who passed their Final Examination for the Degree of M.D., C.M., was 35, alphabetically arranged as follows:

| *Name.* | *Residence.* | *Subject of Thesis.* |
|---|---|---|
| Alguire, Duncan O | Lunenburg, Ont | Auscultation. |
| Bell, Robert W | Carleton Place Ont | Post-partum Hæmorrhage. |

| | | | |
|---|---|---|---|
| Brown, Harry | London, | " | Sleep and its Derangements. |
| Carmichael, Duncan A. | Beechburg, | " | Chronic Bright'sDisease. |
| Chevalier, Napoleon E. | St. Gregoire le Grand, | Q. | Intermittent Fever. |
| Cutter, Frederick A. | Hopkinton, N. Y., | U. S. | Cerebro-Spinal Fever. |
| Edwards, Oliver C. | Clarence, | Ont. | Syph. Affec. of Nerv. Sys. |
| Ellison, Saram R. | St. Thomas, | Ont. | Lobar Pneumonia. |
| Ewing, William | Hawkesbury, | " | Urinary Calculus. |
| Farley, John J. | Belleville, | " | Physical Diagnosis. |
| Fortune, Lewis M. | Huntingdon, | Quebec. | Erysipelas. |
| Gaviller, Edwin A. | Bond Head, | Ont. | Erysipelas. |
| Guest, Thomas F. | St. Mary's | " | Tubercular Meningitis. |
| Hils, Joseph | St. Gregoire, | Quebec | Diabetes Mellitus. |
| Hurlburt, Richard W. | Mitchell, | Ont. | Syphilis. |
| Jackson, William F. | Brockville, | Ont | Diphtheria. |
| Jones, H. J. Montg'ry | Montreal, | Quebec. | Aphasia. |
| Kelly, Thomas | Durham, | Ont. | Epilepsy. |
| Kittson, Edmund G. | Hamilton, | " | Alcohol. |
| Maguire, Bernard D. | Joliette, | Quebec. | Asthma. |
| McConnell, John B. | Chatham, | " | Bronchitis. |
| McDiarmid, James | Prospect, | " | Variola. |
| McDonald, Jos. D. A. | St. Francois du Lac, | Q. | Phlegmasia Dolens. |
| Macleod, James | Uigg, | P. Ed. I. | Pathology of Inflam'tion. |
| O'Brian, Robert S. B. | L'Orignal, | Ont. | Hygiene of Childhood. |
| O'Brien, David | Almonte, | " | Acute Rheumatism. |
| Perry, Hezekiah R. | Coteau Landing, | Quebec. | Rickets. |
| Richmond, Pete E. | N. Y. State, | U. S. | Acute Rheumatism. |
| Shepherd, Francis J. | Montreal, | Quebec. | Hospital Reports. |
| Stevenson, John A. | Cayuga, | Ont. | Puerperal Fever. |
| Tracy, Andrew W. | Island Pond, | U. S. | Vaccination. |
| Walton, George O. | Montreal, | Quebec. | Progressive Loco'r Ataxia. |
| Ward, William T. | Boundary Line, | Quebec. | Ovariotomy. |
| Whiteford, James W. | Belleville, | Ont. | Cholera Infantum. |
| Young, Robert C. | Barton, | Ont. | Erysipelas. |

Three of the above named gentlemen, Messrs. Alguire, Ewing, and Jackson, have not yet completed their twenty-first year, and could not, on that account receive their Diplomas at the late Convocation. They have, however, passed all the examinations, and fulfilled all the other requirements, and only await their majority to receive the Degree.

## EXAMINATIONS IN BOTANY AND ZOOLOGY.

### BOTANY.

*Class I.*—J. B. Benson, (Prize); W. Smith, J. S. Gray, W. Crothers, P. R. Young, J. R. Nason, J. Livingstone, R. N. Powell, G. McRae. *Class II.*—C. M. Laney, A. McCormick, S. R. Falls, H. J. Metcalfe, L. Secord, J. M. Nelles, J. Dowling, A. J. Lindsay, F. S. Snider. *Class III.*—F. Brossard; C, N. Stevenson, C. Stroud, G. Colquhoun, H. L. Gilbert, H. Hunt, W. D Ross, G. E. Bomberry, R. Levi, G. J. Robinson, M. Hanover, J. H. Alcorn, A. D. MacMillan.

ZOOLOGY.

*Class I.*—E. Quinones, (Prize). *Class II.*—N. S. Brown, H. Siever.

## PRIZES.

The Medical Faculty Prizes are three in number,

1st. The Holmes Gold Medal, (founded by the Faculty in honour of their late Dean) awarded to the graduate who receives the highest aggregate number of marks for all the examinations, including Primary, Final, and Thesis.

2nd. A Prize in Books, for the best examination—written and oral—in the Final Branches. The Gold Medallist is not permitted to compete for this prize.

3rd. A Prize in Books, for the best examination—written and oral—in the Primary branches.

The Holmes Medal was awarded to Thomas Kelly, Durham, Ontario.

The Prize for the Final Examination was awarded to Duncan O. Alguire, Lunenburg, Ontario.

The Prize for the Primary Examination was awarded to John D. Cline, B. A., Cornwall, Ontario.

The following gentlemen, arranged in the order of merit, deserve honourable mention:

In the Final Examination: Messrs. Shepherd, Carmichael, Jones and Bell.

In the Primary Examination: Messrs. Woolway, Mines, Sinclair, Ritchie, Cameron, Phelan, Molson, Henderson and Hume.

PROFESSOR'S PRIZES.

*Botany.*—T. B. Benson. *Zoology.*—E. Quinones.
*Practical Chemistry.* William L. Ward.
*Practical Anatomy.*—Senior Class—H. C. Fuller
" —Junior " —J. Livingston.

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## EXTRACTS FROM THE REGULATIONS.

### § 1. *Courses of Lectures, Fees, &c.*

1st. Each Professor shall deliver at least five Lectures during the week, except in the classes of Clinical Medicine and Clinical Surgery, in which only two Lectures shall be required; and in that of Medical Jurisprudence, if extended through six months, in which case three Lectures a week will suffice.

2nd. Each Lecture shall be of one hour's duration.

3rd. Every Professor shall occasionally examine his class upon the subjects treated of in his preceding Lectures; and every such examination shall be considered a Lecture.

4th. A rool of the names of the Students attending each class shall be called from time to time.

5th. All tickets which have not a Certificate of attendance attached, shall be relected when presented as testimonials previous to examination, unless the omission shall be satisfactorily accounted for.

6th. The Fee for each class shall be $12, with the following exceptions; for that of Medical Jurisprudence, $10; for those of Clinical Medicine and Clinical Surgery, $6 each; for Botany and Zoology, $5; Practical Anatomy $5. The class-fees are payable in advance.

7th. Any Student, after having paid the Fees, and attended two courses of any class, shall be entitled to a perpetual ticket for that class.

8th. The courses of all the Classes, except those of Clinical Medicine, Clinical Surgery and Medical Jurisprudence, shall be of six months' duration; the classes of Clinical Medicine and of Clinical Surgery, of three months' duration; Medical Jurisprudence of three months, in which case Five Lectures a week shall be given; or of six months, in which case only three Lectures a week shall be required.

9th. The courses shall commence on the first week of October, and with the exception of a vacation at Christmas, shall continue to the end of March.

10th. The Matriculation Examination shall be that recommended by the Council for Medical Education and Registration of Great Britain. Examinations, in conformity therewith, will be held the first Saturday in October and the last Saturday in March of each year. Applications may be made to the Registrar of the Faculty till the evening of the previous day. The requirements of the standard for matriculation are:—"Compulsory—English Language, including grammar and composition; "Arithmetic, including vulgar and decimal fractions; Algebra, including simple "equations; Geometry, first two books of Euclid; Latin translation and grammar "and one of the following optional subjects:—Greek, French, German, Natural Phi- "losophy, including mechanics, hydrostatics, and pneumatics.

Graduates in Arts of recognized Universities are not required to submit to the Matriculation Examination, and a certificate of having passed this examination before the College of Physicians and Surgeons of Ontario will be accepted by this University.

## § 2. *Qualifications and Studies of Students and Candidates for the Medical Degree.*

1. All Students desirous of attending the Medical Lectures, shall at the commencement of each Session, enrol their names and residences in the Register of the Medical Faculty, and procure from the Registrar a ticket of Enregistration for which each Student shall pay a fee of $2; excepting in the Clinical Classes, in which enregistration for students of other Schools shall not be compulsory.

2. The said Register shall be closed on the 15th day of November, in each year, and no tickets obtained from any of the Professors shall be received without previous enregistration.

3. No one shall be admitted to the Degree of Doctor of Medicine and Master of Surgery, who shall not either:—1st, have attended Lectures for a period of at least four sessions in this University, or some other University, College, or School of Medicine, approved of by this University; or 2ndly, have studied Medicine during at least four years, and during that time have attended Lectures for a period of at least three Sessions, either in this University, or some other University, College, or School of Medicine, approved of by this University.

4. Candidates for the final Examination shall furnish Testimonials of attendance on the following branches of Medical Education, viz :—

| | |
|---|---|
| *Anatomy.*<br>*Chemistry.*<br>*Materia Medica and Pharmacy.*<br>*Institutes of Medicine.*<br>*Principles and Practice of Surgery.*<br>*Midwifery and Diseases of Women and Children.*<br>*Theory and Practice of Medicine.*<br>*Practical Anatomy.* | *Of which two Courses will be required, each of six months' duration.* |
| *Clinical Medicine.*<br>*Clinical Surgery.* | *Of which two Courses will be required each of three months' duration.* |
| *Medical Jurisprudence.*<br>*Botany and Zoology.*<br>*Practical Chemistry.* | *Of which one Course will be required, of three months' duration.* |

Provided, however that Testimonials equivalent to, though not precisely the same as those above stated may be presented and accepted.

5th. The Candidate must give proof by ticket of having attended during twelve months the practice of the Montreal General Hospital, or that of some other Hospital approved of by this University.

6th. He must also give proof by ticket of having attended for at least six months the practice of the University or other Lying-in Hospital approved of by this University, and of having attended at least six cases of accouchement.

7th. No one shall be permitted to become a Candidate for examination who shall not have attended at least One Session of this University, and during that Session one full course of all the branches included in its curriculum.

8th. Courses of less length than the above will only be received for the time over which they have extended.

9th. Every Candidate for the Degree must on or before the Fifteenth of February present to the Dean of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and also a Thesis or Inaugural Dissertation; written by himself, on some subject connected with Medical or Surgical Science, in the Latin, English or French Language. He must at the same time deliver to the Dean of the Faculty the following Certificate :—

MONTREAL,——-18—

I, the undersigned, being desirous of obtaining the Degree of Doctor of Medicine and Master of Surgery, do hereby declare that I have attained the age of twenty-one years, or (if the case be otherwise,) that I shall have attained the age of twenty-one years before the next graduation day, and that I am not (or, shall not be at that time) under articles as a pupil or apprentice to any Physician, Surgeon, or Apothecary.

[Signed,] A. B.

10th. The trials to be undergone by the candidate shall be :—

(1) The private examination of his Thesis as evidence both of Medical and general acquirement, followed (if approved) by its public defence.

(2) A general examination on all the branches of Medical and Surgical Science, oral, and by written papers.

(3) The Clinical Professors shall conduct the examinations of members of their classes at the bed-side, submitting to them cases for diagnosis and treatment in the wards of the Hospital: they shall also in estimating the standing of members of their classes, and the number of marks to be awarded, take into account the regularity of their attendance and the diligence and care they evince in reporting cases.

These examinations will be divided into Primary and Final, the former comprehending Anatomy, Chemistry, Materia Medica, Institutes of Medicine, and Botany or Zoology; the latter—Practice of Medicine, Surgery, Midwifery, and Medical Jurisprudence. It will be optional with the student to present himself for the Primary Examination at the end of the Third Session, or the Third Year.

11th. The following Oath or affirmation, will be exacted from the Candidate before receiving his Degree.

SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis McGill.

Ego, A———B———; Doctoratus in Arte Medica titulo jam donandus, Sancto coram Deo cordium scrutatore, spondeo, me in omnibus grati animi officiis, erga hanc Universitatem ad extremum vitæ halitum, perseveraturum, tum porro artem medicam, caute, caste et probe exercitaturum; et quoad in me est, omnia ad ægrotorum corporum salutem conducentia, cum fide procuraturum; quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita præsens mihi spondenti adsit Numen.

12th. The Fee for the Degree of Doctor of Medicine and Master of Surgery shall be twenty dollars, to be paid by the successful candidate immediately after examination, together with a Registration Fee of one dollar.

13th. The money arising from the Fees of Graduation, as well as those of Enregistration, shall be applied to the enlargement of the Medical Library and Museum, and to defraying their expenses.

## BOOKS RECOMMENDED TO STUDENTS.

ANATOMY.—Gray, Wilson, Ellis, Dublin Dissector, Sharpey and Quain.

CHEMISTRY.—Fownes, Miller, Roscoe.

PRACTICAL CHEMISTRY.—Odling, Galloway, Frezenius.

MATERIA MEDICA.—Pereiva's Manual by Farre, Bentley and Warrington.

INSTITUTES OF MEDICINE.—*Physiology.*—Kirke's Hand-book, Dalton, Carpenter, Flint, Huxley. *Pathology.*—Williams' Principles of Medicine. Jones & Sieveking.

SURGERY.—Holmes' Surgery, Miller's do, Erichsen's do, Druitt's do.

PRACTICE OF MEDICINE.—Aitken, Wood, Watson, Barlow, and Flint.

MEDICAL JURISPRUDENCE.—Orfila Medicine Legal, Taylor's Jurisprudence, Guy's Forensic Medicine.

MIDWIFERY.—Churchill, Ramsbotham, Cazeux.

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N.B.—Boarding may be obtained at from twelve to sixteen Dollars per month.

# Lectures in Medicine.--Session 1873-4.

| | Monday. | Tuesday. | Wednesday. | Tuhrsday. | Friday. | Saturday. | |
|---|---|---|---|---|---|---|---|
| INSTITUTES OF MEDICINE, - | 9 | 9 | 9 | 9 | 9 | | A. M. |
| MEDICAL JURISPRUDENCE, - | 9 | | 9 | | 9 | | |
| SURGERY, - - - - - - - - | 10 | 10 | 10 | 10 | 10 | | |
| BOTANY* - - - - - - - - | | 10 | | 10 | | | |
| MIDWIFERY, - - - - - - - | 11 | 11 | 11 | 11 | 11 | | |
| HOSPITAL, - - - - - - - - | 12 | 12 | 12 | 12 | 12 | 12 | NOON. |
| CLINICAL LECTURES, - - - | | | 12 | | | 12 | |
| ANATOMY, - - - - - - - - | 2 | 2 | 2 | 2 | 2 | | P. M. |
| PRACTICAL CHEMISTRY, - - | | 2 | | 2 | | 2 | |
| MATERIA MEDICA, - - - - | 3 | 3 | 3 | 3 | 3 | | |
| PRACTICE OF PHYSIC, - - - | 4 | 4 | 4 | 4 | 4 | | |
| CHEMISTRY, - - - - - - - | 5 | 5 | 5 | 5 | 5 | | |

*With microscopic work at separate hours.

# Faculty of Law.

The Principal (Ex officio.)

Professors—

ABBOTT.
LAFRENAYE.
LAFLAMME.
CARTER.
KERR.
TRENHOLME.
WURTELE.
DOUTRE.

Lecturer—ARCHIBALD.

Dean of the Faculty,—HON. J. J. C. ABBOTT, Q.C., D. C. L.

Registrar of the Faculty—J. S. ARCHIBALD, B.A., B. C. L.

Matriculation Examiners of the Faculty—Professor DOUTRE, D. C. L., and JOHN S. ARCHIBALD, B.A., B.C.L.

The Classes in Law will commence on Wednesday the First of October, 1873, and will extend to March 31st, 1874.

The Lecture Rooms of the Faculty are situated in the Molson's Bank Chambers in St. James Street.

The complete course of study in this Faculty extends over three years; but it may be shortened to two years, when the student matriculates in the third year of his indentures.

Students who avail themselves of the privilege of attending two years only, will nevertheless be required to pass an examination in the subjects comprised in the three years' course.

Occasional Students will be received without matriculation, for attendance on any particular series of Lectures.

Students who have completed their course of three years,—or of two years, if they have commenced in the third year of their indentures,—and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Faculty of Law, to the Degree of Bachelor of Civil Law.

## COURSE OF STUDY.

### FIRST YEAR.

| | |
|---|---|
| *Legal History* | Professor LAFRENAYE |
| *Civil Law* :— | |
| Persons, Property, Ownership | Professor LAFLAMME. |

| | |
|---|---|
| *Roman Law :—* | |
| Institutes of Justinian, B. I. | Professor TRENHOLME. |
| Gaius, C. I. | |
| Maine, Chapters I to IV | |
| *Civil and Commercial Law :—* | |
| Obligations | Professor WURTELE. |
| *Judicial Logic and Professional Etiquette,* | Professor DOUTRE. |

SECOND YEAR.

| | |
|---|---|
| *Legal Bibliography* | |
| *Civil Law :—* | Professor LAFRENAYE. |
| Rents | |
| Transaction | |
| Suretyship | |
| *Civil Law :—* | |
| Unsufruct | |
| Real Servitudes | Professor LAFLAMME. |
| Gifts and Wills | |
| Substitutions | |
| *International Law :—* | Professor KERR. |
| *Civil and Commercial Law :—* | |
| Sales | |
| *Roman Law :—* | |
| Institutes of Justinian, B. 2 and B. 3 to Title 14 | Professor TRENHOLME. |
| Gaius, C. 2 and 3 | |
| Maine, Chapters V to VIII | |
| *Commercial Law :—* | |
| Partnership | Professor WURTELE. |
| Corporations | |
| Bills of Exchange | |
| *Medical Jurisprudence (in its legal relations)* | Professor DOUTRE. |
| *Constitutional Law :—* | Professor CARTER and Mr. ARCHIBALD. |

THIRD YEAR.

| | |
|---|---|
| *Civil Law :—* | |
| Lease | Professor LAFRENAYE. |
| Privileges and Hypothecs | |
| Prescription | |
| Imprisonment in Civil Cases | |
| *Civil Law :—* | |
| Successions | Professor LAFLAMME. |
| Marriage Covenants | |
| Dower | |
| *International Law :—* | Professor KERR |
| *Commercial Law :—* | |
| Carriage of Persons | |
| Insurance | |
| Bottomry and Respondentia | |
| *Roman Law :—* | |
| Institutes of Justinian, B. 3 from Title 14 | Professor TRENHOLME. |
| Maine, Chapters IX and X | |
| *Civil Code :—* | |
| Mandate | |
| Loan | |
| Deposit | |
| Pledge | |
| *Evidence* | |

| | |
|---|---|
| *Commercial Law :—* | |
| Merchant Shipping | Professor WURTELE. |
| Affreightment | |
| Insolvency | |
| *Civil Procedure :—* | |
| Procedure before the Courts | Professor DOUTRE. |
| Non-contentious and Notarial proceedings | |
| *Criminal Law and Procedure* | Professor CARTER and Mr. ARCHIBALD. |

## EXTRACTS FROM THE REGULATIONS.

1. Any person desirous of becoming a Matriculated Student shall apply to the Registrar of the Faculty for examination and for entry in the Register of Matriculations, and shall procure tickets of Matriculation and of admission to the Lectures for each Session of the Course.

2. Candidates for Matriculation shall be examined in at least one Latin Classic and in English or French, the standard being such as be determined by regulation of the Faculty, approved by the Corporation.

3. Students in Law shall be known as of the First, Second and Third Years, and shall be so graded by the Faculty. In each year, Students shall take the studies fixed for that year and those only, unless by special permission of the Faculty.

4. The Register of Matriculation shall be closed on the 1st of November in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty; and if admitted, their names shall be returned in a supplementary list to the Registrar.

5. Persons desirous of entering as Occasional Students shall apply to the Registrar of the Faculty for admission as such Students, and shall obtain a ticket, or tickets, for the class or classes they desire to attend.

6. Students who have attended Collegiate courses of study in other Universities for a number of terms or sessions may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

7. All Students shall be subject to the following regulations for attendance and conduct :—

(1) A Class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted; and the said Class-books shall be submitted to the Faculty at a meeting to be held between the close of the lectures and the commencement of the examinations; and the Faculty shall, after examination of such class-books, decide, what students, shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examinations in the respective classes.

(2) Punctual attendance on all the classes proper to his year is required of each student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the student or report to the Faculty, as he may decide. While in the building, or going to or from it, students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the student; and, if necessary, report him to the Dean.

(3) When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.

(4) Any Student injuring the furniture or building, will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to inflict.

(5) The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

(6) All cases of discipline involving the interests of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

8 At the end of every Session there shall be a general examination of all the Classes, under the Superintendence of the Professors, and of such other Examiners as may be appointed by the Corporation, which examination shall be conducted by means of printed questions, answered by the students in writing, in the presence of the Examiners. The result shall be reported as early as possible to the Faculty, which shall decide the standing of the Students accordingly.

9. Each Professor shall deliver at least two Lectures in each week; each Lecture shall be of one hour's duration; but the Professors shall have the right from time to time to substitute an examination for any of such Lectures.

10. No Student shall be considered as having kept a Session in this Faculty, unless he shall have attended all the courses of Lectures, and shall have passed the Sessional Examinations to the satisfaction of the Faculty, in four classes in the 1st and 2nd years, and in five in the 3rd year.

11. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any Student from attendance on any particular Course or Courses of Lectures, but no distinction shall, in consequence, be made between the Examinations of such Students, and those of the Students regularly attending Lectures. No Student shall pass for the degree of B. C. L. unless he has prepared a Thesis either in French or English which shall have been approved by the Faculty.

12. The subject of such Thesis shall be left to the choice of the Student, but it must fall within the range of study of the Faculty and shall not exceed the length heretofore allowed. Each student shall on or before the first day of February forward such Thesis to the Registrar of the Faculty, marked with the *non de plume* which he shall adopt, and accompanied with a sealed envelope bearing the same *non de plume* on the back, and containing inside his real name and the subject of his Thesis, and these envelopes shall be opened in the presence of the Faculty after the final decision shall be given on the respective merits of the said Thesis.

13. The Elizabeth Torrance Gold Medal, in the Faculty of Law, shall be awarded to the Student who being of the Graduating Class and having passed the Final Examination, shall have prepared a Thesis of sufficient merit in the estimation of the Faculty to entitle him to compete, and who shall take the highest marks in a special Examination for the Medal, which Examination shall in all cases include the subject of Roman Law.

14. The exercises required under the 3rd Art. of the 7th Chapter of the Statutes of this University, to entitle the Student to receive the Degree of B. C. L. in this Faculty, shall consist of Attendance upon Lectures and submission to Examinations and the writing of an approved Thesis as hereinbefore prescribed: and no distinction in respect thereof shall be made between Students applying for their Degrees, whether their attendance upon Lectures shall have been for two or three years.

The following affirmation will be exacted from the candidate before receiving his Degree :—

Ego polliceor, me, pro viribus meis, studiosum fore communis hujus Universitatis boni, operamque daturum ut decus ejus ac dignitatem amplificem, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

15. The Fees exigible in this Faculty shall be as follows :—

| | |
|---|---|
| Matriculation Fee | $ 5 00 |
| Sessional Fee by Ordinary Students | 20 00 |
| Sessional Fee by Occasional or Partial Students, for each course | 5 00 |
| Graduation Fee, including Diploma | 5 00 |

All of which Fees shall be paid in advance. But Students already on the Books of the University shall not be required to pay any Matriculation Fee; and Students simultaneously attending lectures in the Faculty of Arts shall be received upon such terms as shall be fixed by this Faculty.

# Prizes, Honours and Standing.

*Session* 1872-3.

## FACULTY OF LAW.

ELIZABETH TORRANCE MEDALLIST.—In special examination covering the whole course.

MATTHEW HUTCHINSON.

SECOND PRIZE AND PRIZE FOR BEST THESIS.—Joseph Desrosiers.

RANKING OF STUDENTS AS TO GENERAL PROFICIENCY.

*Third Year.*

First, MATTHEW HUTCHINSON, first in five classes and second in one class.
Second, JOSEPH DESROSIERS, first in two classes and second in one.

*Second Year.*

First, DAVID MAJOR, first in two classes and second in one class.
Second, GEORGE ERNEST JENKINS and ADOLPHE LABADIE, first in two classes.

*First Year.*

First, AUGUSTINE HURD, first in three classes and second in one.
Second, EDOUARD COUILLARD, first in one class and second in one.

COMMERCIAL LAW.—THE DEAN OF THE FACULTY, THE HON. J. J. C. ABBOTT, D. C. L., AND PROFESSOR WURTELE, B. C. L.

*Third Year.*

First, MATTHEW HUTCHINSON; Second, JOSEPH DESROSIERS.

*Second Year.*

First, HENRI ARCHAMBAULT and ADOLPHE LABADIE, equal.
Second, DAVID WELLS R. HODGE.

*First Year.*

AUGUSTINE HURD and EDOUARD COUILLARD, equal.
Second, JOHN SMITH HALL.

LEGAL HISTORY.—PROFESSOR LAFRENAYE, D. C. L.

*Third Year.*

First, JOSEPH DESROSIERS and MATTHEW HUTCHINSON, equal.
Second, JAMES LONERGAN and HENRI BENJAMIN RAINVILLE, equal.

*Second Year.*

First, ADOLPHE LABADIE and EDOUARD ANTILLE PANET, equal.

Second, ODILON LABADIE.

*First Year.*

First, RUSS WOOD HUNTINGTON; Second, AUGUSTINE HURD.

LAW OF REAL ESTATE.—PROFESSOR LAFLAMME, B. C. L.

*Third Year.*

First, AMEDEE CHAURET; Second, DUNCAN EWEN BOWIE.

*Second Year.*

First, DAVID MAJOR; Second, FRANCOIS XAVIER CHOQUETTE.

*First Year.*

First, ADOLPHE DESRIVIERES;

Second, EDOUARD COUILLARD and CHARLES HENRY STEPHENS, equal.

CRIMINAL LAW.—Professor CARTER, B. C. L., and JOHN SPROTT ARCHIBALD, B. A., B. C. L.,—Lecturer.

*Third Year.*

MATTHEW HUTCHINSON and LEWIS WILLIAM POITRAS COUTLEE, equal; Second, DUNCAN EWEN BOWIE.

INTERNATIONAL LAW.—Professor KERR, Q. C., D. C. L.

*Third Year.*

First, LEWIS WILLIAM POITRAS COUTLEE and MATTHEW HUTCHINSON, equal; Second, DUNCAN EWEN BOWIE.

*Second Year.*

First, GEORGE ERNEST JENKINS; Second, DAVID R. WELLS HODGE.

ROMAN LAW.—Professor TRENHOLME, M. A., B. C. L., and C. A. GEOFFRION, B. C. L., Lecturer.

*Third Year.*

First, RAYMOND PREFONTAINE; Second, MATTHEW HUTCHINSON.

*Second Year.*

First, GEORGE ERNEST JENKINS;

Second, DAVID MAJOR and DAVID WELLS R. HODGE, equal.

*First Year.*

First, AUGUSTINE HURD; Second, JOHN SMITH HALL.

CIVIL PROCEDURE AND MEDICAL JURISPRUDENCE.—Professor GONZALVE DOUTRE, B. C. L.

*Third Year.*

First, MATTHEW HUTCHINSON and JOSEPH DESROSIERS, equal; Second, RAYMOND PREFONTAINE.

*Second Year.*

First, DAVID MAJOR; Second, DAVID WELLS R. HODGE.

*First Year.*

First, AUGUSTINE HURD; Second, WILLIAM GALBRAITH.

## FACULTY OF MEDICINE.

THOMAS KELLY, Durham, Ontario, for Thesis and Best Examination in all the branches of Study.—HOLMES GOLD MEDAL.

DUNCAN O. ALGUIRE, Lunenburgh, Ont., Prize for the best Examination in the Final Branches.

*Students deserving Honourable Mention in the Final Branches:*—Messrs. SHEPHERD, CARMICHAEL, JONES and BELL.

JOHN D. CLINE, B. A. Cornwall, Ont., Prize for the best Examination in the Primary Branches.

*Students deserving Honourable Mention in Primary Branches:*—Messrs. WOOLWAY, MINES, SINCLAIR, RITCHIE, CAMERON, PHELAN, MOLSON, HENDERSON, HUME.

WILLIAM T. WARD, Professor's Prize in Practical Chemistry.

J. B. BENSON, Prize in Botany.

E. QUINONES, Prize in Zoology.

### EXAMINATIONS IN BOTANY AND ZOOLOGY.

*Botany.*

*Class I.*—J, B. BENSON (Prize), W. SMITH, J. S. GRAY, W. CROTHERS, P. R. YOUNG, J. R. NASON, J. LIVINGSTONE, R. N. POWELL, G. MCRAE.

*Class II.*—C. M. LANEY, A. MCCORMICK, S. R. FALLS, H. J. METCALFE, L. SECOND, J. M. NELLES, J. DOWLING, A. J. LINDSAY, F. S. SNIDER.

*Class III.*—F. BROSSARD, C. N. STEVENSON, C. STROUD, G. COLQUHOUN, H. L. GILBERT, W. D. ROSS, G. E. POMBERRY, R. LEVI, G. J. ROBINSON, M. HANOVER, J. H. ALGORN, A. D. MACMILLAN.

*Zoology.*

*Class I.*—E. QUINONES, (Prize).

*Class II.*—N. S. BROWN, H. SLEVER.

# FACULTY OF ARTS.

## HONOURS AND PRIZES.

*Graduating Class.*

*B. A. Honours in Classics.*

RICHARD L. MACDONNELL.—First Rank Honours, and *Chapman Gold Medal.*

ARTHUR F. RITCHIE.—First Rank Honours.

*B. A. Honours in Mathematics.*

DUNCAN C. MCLEOD.—First Rank Honours, *Anne Molson Gold Medal* and Anne Molson prize.

*B. A. Honours in Natural Science.*

CHARLES H. MURRAY.—First Rank Honours, *Logan Gold Medal* and Logan prize for collection of Fossils.

*B. A. Honours in English Literature.*

JAMES G. ALLAN.—First Rank Honours and *Shakspere Gold Medal.*

SIMON J. TUNSTALL.—First Rank Honours.

HERBERT L. REDDY.—First Rank Honours.

CHARLES J. FLEET.—First Rank Honours.

### THIRD YEAR.

GEORGE B. WARD, First Rank Honours in Classics and Prize.

ARCHIBALD D. TAYLOR—First Rank Honours in Classics and Prize.

J. S. MCLENNAN.—First Rank Honours and Prize in Mental and Moral Philosophy.

F. MCN. DEWEY.—First Rank Honours in Mental and Moral Philosophy.

W. B. DAWSON.—First Rank General Standing, prize in Rhetoric, Logan prize for Collection of Plants.

CHARLES M. HARVEY.—First Rank General Standing, prize in French.

ERNEST M. TAYLOR.—Second Rank Honours in Mental and Moral Philosophy, Prize for English Essay.

JOHN ALLAN.—Prize in Zoology.

### PASSED THE SESSIONAL EXAMINATIONS.

Dawson, Harvey (C.), Allan, Taylor (A. D.), Ward, Hall, Thomas, Harvey (A.), McLennan, Dewey, Stevenson, Taylor (E. M.), Greenshields, Black.

### SECOND YEAR.

GEORGE H. CHANDLER.—(Shefford Academy)—First Rank Honours in Mathematics and Prize; Certificate in English; Prize in Logic; Prize in French; Prize in Botany.

ELSON T. REXFORD.—(McGill Normal School)—Certificate in English.

### PASSED THE SESSIONAL EXAMINATIONS.

Chandler, Rexford, Donovan, Hawley, Eccles, Ritchie, Malcolm.

FIRST YEAR.

HENRY H. LYMAN.—(*High School*)—First Rank Honours and Prize in Mathematics; First Rank General Standing; prize in Chemistry; Prize in English History.

ARCHIBALD McGOUN.—(*Private Tuition*)—First Rank General Standing; Prize in Greek; Prize in Latin; Prize in English.

ALINDUS J. WATSON.—(*Huntingdon Academy*)—First Rank General Standing; Prize in History.

COLIN E. AMARON.—(*Private Tuition*)—Prize in French.

JOHN MATHESON.—Prize in Hebrew.

PASSED THE SESSIONAL EXAMINATIONS.

Lyman, McGoun, Watson, Jenkins, Cox, Morton, Amaron, Matheson, McLemore, McOuat, Graham.

*Stewart Prize in Hebrew.*—R. WATT.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

*Graduating Class.*

*Course of Civil and Mechanical Engineering.*

DONALD A. STEWART.—Certificate of Merit in Engineering.

CLEMENT H. McLEOD.—Certificate of Merit in Engineering.

HENRY K. WICKSTEED.—Certificate of Merit in Engineering.

*Course of Mining and Assaying.*

JOHN FRASER TORRANCE.—First Rank Honours in Natural Science.

MIDDLE YEAR.

ROBERT WEEKS.—Prize in Engineering; Professor's Prize in Zoology; Prize in French.

JOSEPH W. SPENCER.—Prize in Assaying; Prize in Geology; Second Prize for Collection of Fossils.

WILLIAM B. DAWSON.—Prize in Zoology.

CHARLES HARVEY.—Prize in German.

PASSED THE SESSIONAL EXAMINATIONS.

*Civil and Mechanical Engineering.*—Weeks, Dawson, Harvey, McLean, Robertson Batcheller, Boswell.

*Mining and Assaying.*—Spencer, Stevenson.

JUNIOR YEAR.

A. E. HILL.—Prize in Surveying and Drawing.

JOHN McKERCHER.—Prize in English; Prize in French.

PASSED THE SESSIONAL EXAMINATIONS.

McKercher, Hill, Tatlow, Hodge.

# CHRISTMAS EXAMINATIONS, 1872.

## GREEK.

FIRST YEAR.—*Class I.*—McGoun, Lyman, Watson, Cox. *Class II.*—Jenkins, McLemore, Amaron, Matheson; Brown and Gray, equal; Pelletier and Ross, equal. *Class III.*—Allan (J. S.) and Duffy and Graham, equal: Tupper, Elliot, Howe.

SECOND YEAR.—*Class I.*—Chandler, Ritchie (W. F.). *Class II.*—Eccles, Rexford, Denovan. *Class III.*—Hawley, Malcolm.

THIRD YEAR.—*Class I.*—Ward, Taylor (A. D.). *Class II.*—Hall; Greenshields and Harvey (A) and Thomas, equal; Black and Taylor (E.), equal; Allan (John). *Class III.*—Craig, Dewey, McLennan.

## LATIN.

FIRST YEAR.—*Class I.*—McGoun, Watson, Ross, Jenkins. *Class II.*—Lyman, Cox. Tupper; Allan (J. S.) and Gray and Matheson, equal. *Class III.*—Brown, Amaron, McLemore; Pelletier and Graham, equal; Papineau and Duffy, equal; Morton, Joseph, Howe.

SECOND YEAR.—*Class I.*—Chandler, Eccles, Ritchie (W. F.). *Class II.*—Rexford and Denovan, equal. *Class III.*—Malcolm, Hawley.

THIRD YEAR.—*Class I.*—Taylor (A. D.), Ward. *Class II.*—Harvey (A.), and McLennan and Thomas, equal; Hall, Greenshields; Black and Allan (John), equal; Craig and Dewey and Taylor (E.), equal.

## MENTAL AND MORAL PHILOSOPHY.

FOURTH YEAR.—*Class I.*—None. *Class II.*—McIntosh, Silcox (E. D.), Estes. *Class Class III.* None.

THIRD YEAR.—*Class I.*—McLennan; Allan and Dewey and Taylor (A. D.) equal; Ward. *Class II.*—Black and Harvey (A.), equal; Thomas, Hall, Greenshields, McIntosh. *Class III.*—Estes, Taylor (E.), Craig, Silcox (E D.).

## LOGIC.

SECOND YEAR.—*Class I.*—Rexford, Chandler, Denovan, Silcox (J. B.). *Class II.*—Eccles and Hawley, equal; Estes. *Class III.*—Malcolm, Ritchie (W. F.).

## ENGLISH LITERATURE.

FOURTH YEAR.—*Class I.*—Tunstall, Allan (James G.), Fleet, Reddy. *Class II.*—None. *Class III.*—Estes.

## ENGLISH LANGUAGE.

FIRST YEAR.—*Class I.*—McGoun. *Class II.*—Watson, McLemore, Lyman, Morton, Jenkins, Silcox (J. B.), Cox. *Class III.*—Amaron, Ross, Matheson, Tupper Graham, Allan (J. S.), Gray, Pelletier, Papineau, Howe, McOuat, Joseph, Elliott.

## RHETORIC.

THIRD YEAR.—*Class I.*—Dawson, Taylor (E.). *Class II.*—Dewey, Allan (J.), Hall, Harvey, (Chas.). *Class III.*—Greenshields, Ward, McLennan, Taylor (A. D.), Craig.

FRENCH.

THIRD YEAR.—*Class I.*—Dawson. *Class II.*—Harvey (Chas.). *Class III.*—Hall, McLennan.

SECOND YEAR.—*Class I.*—Chandler, Weeks, Rexford. *Class II.*—Denovan, Ritchie (W. F.). *Class III.*—Eccles, Black, Hawley.

FIRST YEAR.—*Class I.*—Amaron and Jenkins, equal;—McGoun, Watson, Lyman. *Class II.*—Morton, Ross. *Class III.*—Joseph; Pelletier and Tupper and Graham, equal; Brown, Papineau, Duffy, McOuat.

GERMAN.

FIRST YEAR.—*Class I.*—Ross, McLemore. *Class II.*—None. *Class III.*—None.

HEBREW.

JUNIOR YEAR.—*Class I.*—McRae, Hamilton, Joseph, McGoun. *Class II.*—Gray and McPhee, equal; —Cox, Matheson, McGregor, Brouillette (C.). *Class III.*—McLennan, Brouillette (T.), McLeod, Rivard.

SENIOR YEAR.—*Class I.*—Paradis. *Class II.*—None. *Class III.*—Malcolm.

MATHEMATICS.

FIRST YEAR.—*Class I.*—Lyman; McGoun and Morton, equal; Jenkins, Watson,. *Class II*—Brown. *Class III.*—Cox and Matheson, equal; Graham, Tupper; Amaron and Howe and Joseph and McOuat, equal.

SECOND YEAR.—*Class I.*—Rexford, Chandler. *Class II.*—Hawley. *Class III.*—Denovan Eccles, Malcolm, Ritchie (W. F.).

MATHEMATICAL PHYSICS.

THIRD YEAR.—*Class I.*—Dawson. *Class II.*—Hall. *Class III.*—Taylor (A.D.) and Thomas, equal; Taylor (E. M.), Harvey (Chas.), Allan (John), Dewey, McLennan, Wellwood; Black and Ward, equal; Greenshields, Craig.

FOURTH YEAR.—*Class I.*—McLeod, (D. C). *Class II.*—MacDonnell, Ritchie (A. F.) *Class III.*—Fleet.

EXPERIMENTAL PHYSICS.

THIRD YEAR.—*Class I.*—Dawson; Taylor (A. D.) and Taylor (E. M.), equal. *Class II.*—Allan (J.), Harvey (Chas.), McLennan, Dewey. *Class III.*—Ward, Thomas, Craig, Greenshields, Hall, Harvey (Alf.).

FOURTH YEAR.—*Class I.*—McLeod (D. C.) and Murray, equal; Tunstall; Allan (J. G.) and Reddy. equal. *Class II.*—None. *Class III.*—Fleet.

NATURAL SCIENCE.

FIRST YEAR.—(*Chemistry*)—*Class I.*—Lyman, Jenkins. *Class II.*—Amaron and Morton, equal; Cox, Duffy. *Class III.*—McLemore, Watson, Graham, McGoun, Matheson, Howe.

SECOND YEAR.—(*Botany*)—*Class I.*—Chandler, Rexford, Hawley. *Class II.*—Silcox, (J. B), Eccles, Denovan. *Class III.*—Silcox (E. D.), Malcolm, Ritchie, (F. W.).

THIRD YEAR.—(*Zoology*)—*Class I.*—Allan (Jno.), Dawson, Harvey (C.) Taylor (A. D. Ward, Thomas, Hall. *Class II.*—Taylor (E.), Dewey, Greenshields, Harvey (A.), Ward, Thomas, Hall. *Class III.*—Black, McLennan, Craig.

FOURTH YEAR.—(*Geology*).—*Class I.*—Murray,. *Class II.*—None. *Class III.*—None.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

### ENGINEERING.

SENIOR YEAR.—*Class I.*—McLeod and Stewart, equal; Wicksteed. *Class II.*—Kennedy and Brodie, equal. *Class III.*—None.

MIDDLE YEAR.—*Class I.*—Weeks, Dawson, Robertson. *Class II.*—Spencer, Rodger; McLean and Harvey (Charles), equal; Batcheller, Frothingham, Boswell. *Class III.*—None.

JUNIOR YEAR.—*Class I.*—Hill. *Class II.*—Hodge, McKercher, Tatlow. *Class III.*—Bellanger, Fleming, (occ.) Richardson, Slater, Burke.

### MATHEMATICS.

JUNIOR YEAR.—*Class I.*—McKercher. *Class II.*—None. *Class III.*—Tatlow, Hill, Hodge.

MIDDLE YEAR.—*Class I.*—Spencer. *Class II.*—Harvey (C.), Page, Robertson. *Class III.*—McLean, Batcheller, Boswell, Rodger, Wilson.

### MATHEMATICAL PHYSICS.

MIDDLE YEAR.—*Class I.*—Weeks. *Class II.*—Spencer. *Class III.*—Page; Batcheller and Boswell, equal; Rodger, Robertson.

SENIOR YEAR.—*Class I.*—Stewart. *Class II.*—Wicksteed, McLeod, (C. H.) *Class III.*—Brodie, Kennedy.

### EXPERIMENTAL PHYSICS.

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### CHEMISTRY.

JUNIOR YEAR.—*Class I.*—Weeks, McKercher. *Class II.*—Hill, Hodge, Tatlow. *Class III.*—None.

### USE OF THE BLOW PIPE AND ASSAYING.

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### MINING AND METALLURGY.

SENIOR YEAR.—*Class I.*—None. *Class II.*—Torrance. *Class III.*—None.

### GEOLOGY.

SENIOR YEAR.—*Class I.*—Stewart, Spencer, Brodie, Wicksteed, McLeod. *Class II.*—Stevenson. *Class III.*—None.

### ZOOLOGY.

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FRENCH.

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GERMAN.

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MIDDLE YEAR.--*Class I.*--Harvey (C.), Dawson. *Class II.*--Stevenson, Frothingham. *Class III.*--None.

SPECIAL EXAMINATION IN HISTORY.--PROF. GOLDWIN SMITH, EXAMINER.

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# McGILL COLLEGE.

SESSIONALEXAMINATIONS, 1873.

GREEK.

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THIRD YEAR.—*Class I.*—Ward, Taylor (A. D.), Thomas. *Class II.*—Hall, McLennan, Harvey (Alf.), Dewey, Craig, Allan (John), Taylor (E. M.). *Class III*—Greenshields, Black.

SECOND YEAR.—*Class I.*—Chandler;—Eccles and Rexford, equal;—Denovan. *Class II.*—Ritchie (W. F.). *Class III.*—Hawley, Malcolm.

FIRST YEAR.—*Class I.*—McGoun (Prize); Watson, Cox. *Class II.*—Jenkins;—Lyman and Amaron, equal;—Matheson and Ross, equal;—Dorion. *Class III.*—Gray, McOuat;—Duffy and McLemore, equal;—Graham, Allan (J. S.);—Joseph and Morton and Tupper, equal.

LATIN.

B. A. ORDINARY.—*Class I.*—MacDonnell, Ritchie (A. F.), *Class II.*—None. *Class III.*—None.

THIRD YEAR.—*Class I.*—Taylor, (A. D.), Ward, Greenshields. *Class II.*—Thomas, Harvey (Alf.), Hall, Taylor (E. M.), Dewey, McLennan, Craig, Allan (J. S.). *Class III.*—Black.

SECOND YEAR.—*Class I.*—Chandler, Ritchie (W. F.), Denovan, Rexford. *Class II.*—Eccles and Hawley, equal. *Class III.*—Malcolm.

FIRST YEAR.—*Class I.*—McGoun (Prize);—Watson, Jenkins, Ross, Lyman. *Class II.*—Cox;—Amaron and McLemore, equal;—Tupper, Gray. *Class III.*—McOuat, Matheson, Dorion;—Duffy and Graham and Morton, equal;—Allan (John S.).

HISTORY.

B. A. ORDINARY.—(*Modern Language and History*). *Class I.*—Allan and Tunstall, equal;—Reddy. *Class II.*—Fleet. *Class III.*—None.

FIRST YEAR.—*Class I.*—Watson (Prize);—McGoun, Lyman, Cox. *Class II.*—McLemore, Ross, Morton;—Duffy and Jenkins and Tupper, equal. *Class III.*—Amaron;—Allan (J. S.), and Matheson, equal;—Dorion, Graham.

LOGIC, MENTAL AND MORAL PHILOSOPHY.

FOURTH YEAR.—(*Mental Philosophy*). *Class III.*—Estes, Silcox (E. D.).

THIRD YEAR.—(*Moral Philosophy*). *Class I.*—McLennan (Prize). *Class II.*—Harvey, (Alfred), Allan and Taylor (Archibald), equal; Thomas; Black and Ward, equal; Dewey, Hall, Cassels, Taylor (Ernest). *Class III.*—Craig, Estes, Greenshields.

SECOND YEAR.—(*Logic*). *Class I.*—Chandler (Prize); Rexford, Denovan, Silcox, (J. B). *Class II.*—Eccles, Hawley, Malcolm, Ritchie, Estes.

ENGLISH LITERATURE.

B. A. ORDINARY.—*Class I.*—Allan, Tunstall. *Class II.*—Fleet, Reddy.

THIRD YEAR.—(*Rhetoric*).—*Class I.*—Dawson (Prize), E. Taylor (prize for Essay), Allan. *Class II.*—Stevenson, Dewey, Hall, Thomas, Craig, A. D. Taylor, McLennan, Ward, A. Harvey, Estes, Greenshields.

SECOND YEAR.—(*Intermediate Examination*).—*Class I.*—Rexford and Chandler, equal. *Class II.*—Denovan, Eccles, Hawley.

FIRST YEAR.—*Class I.*—McGoun (prize), Morton, Cox, Lyman. *Class II.*—McLemore, Ross, Watson, Matheson, Amaron, Jenkins, Gray, McOuat. *Class III.*—Graham, Silcox, Dorion, Tupper.

FRENCH.

FIRST YEAR.—*Class I.*—Amaron (prize), Ross, Lyman, Dorion. *Class II.*—Jenkins, McGoun, Watson. *Class III.*—McOuat, Tupper, Joseph, Morton, Graham.

SECOND YEAR.—*Class I.*—Chandler (prize), Rexford, Denovan. *Class II.*—Ritchie, Eccles, Hawley. *Class III.*—None.

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GERMAN.

THIRD YEAR.—*Class I.*—Harvey (C.), Dawson. *Class. II.*—None. *Class III.*—Stevenson.

FIRST YEAR.—*Class I.*—Ross. *Class II.*—McLemore. *Class III.*—None.

HEBREW.

SECOND YEAR.—*Class I.*—Robert Watt. *Class II.*—None. *Class III.*—Malcolm.

FIRST YEAR.—*Class I.*—Mathieson (prize), McGoun, Cox, Joseph, McPhee. *Class II.* Brouillette (J.), MacRae. *Class III.*—Brouillette (C.), McLennan (F.).

MATHEMATICAL PHYSICS.

B. A. ORDINARY.—*Class I.*—McLeod (D. C.), MacDonnell. *Class II.*—None. *Class III.*—Ritchie, A. F., Fleet.

THIRD YEAR.—*Class I.*—Harvey, (Chs.), Dawson. *Class II.*—Allan (John). *Class III.*—Hall, Thomas, Taylor (A. D.), Ward, Dewey, Stevenson; Greenshields and McLennan equal; Black, Harvey (Alfred), Taylor (E. M.).

MATHEMATICS.

SECOND YEAR.—*Class I.*—Rexford, Chandler. *Class II.*—Hawley, Denovan. *Class III.* Ritchie (W. F.), Eccles, Malcolm.

FIRST YEAR.—*Class I.*—Lyman, Watson, Morton. *Class II.*—Jenkins, McGoun. *Class III.*—Cox, Duffy, Gray, Graham, McLemore, Matheson, McOuat, Amaron, Howe, Joseph.

EXPERIMENTAL PHYSICS.

B. A. ORDINARY.—*Class I.*—McLeod (D. C.) and Murray, equal; Reddy, Tunstall, Allan. *Class II.*—None. *Class III.*—Fleet.

THIRD YEAR.—*Class I.*—Harvey (Chs.); Dawson and McLennan, equal. *Class II.*—Taylor (A. D.), Allan (J.), Harvey (A.). *Class III.*—Hall, Thomas, Stevenson, Greenshields; Ward and Craig, equal; Dewey and Taylor (E. M.), equal.

HONOUR EXAMINATIONS.

B. A. HONOURS.—(*Mathematics and Natural Philosophy*).—*First Rank.*—McLeod, (D. C.).

SECOND YEAR.—(*Mathematics*).—*First Rank.*—Chandler.

FIRST YEAR.—(*Mathematics*).—*First Rank.*—Lyman (H. H.).

NATURAL SCIENCE.

B. A. ORDINARY.—(*Geology*).—*Class I.*—Murray.

THIRD YEAR.—(*Zoology*).—*Class I.*—Allan (prize), Dawson. *Class II.*—Harvey (A.), Taylor (E.), Dewey, Ward, Harvey (C). *Class III.*—Taylor (A.), McLennan, Thomas, Craig, Black, Greenshields.

SECOND YEAR.—(*Botany*).—*Class I.*—Chandler (prize), Rexford, Hawley. *Class II.*—Denovan, Eccles. *Class III.*—Ritchie, Silcox, Malcolm.

FIRST YEAR.—(*Chemistry*).—*Class.*—Lyman (prize). *Class II.*—Amaron. *Class III.*—Jenkins, McGoun, McLemore, Watson, McOuat, Duffy, Morton, Graham, Matheson, Cox, Tupper, Dorion.

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## MORRIN COLLEGE.

GREEK.

B. A. ORDINARY.—*Class I.*—Cassels.

SECOND YEAR.—(*Intermediate Ex.*)—*Class I.*—Stuart. *Class II.*—Elliott.

LATIN.

B. A. ORDINARY.—*Class I.*—Cassels.

SECOND YEAR.—(*Intermediate Ex.*)—*Class I.*—Elliott and Stuart, equal.

HISTORY.

B. A. ORDINARY.—(*Modern Language and History*).—*Class II.*—Cassels.

MATHEMATICS.

B. A. ORDINARY.—*Class II.*—Cassels.

SECOND YEAR.—(*Intermediate Ex.*)—*Class II.*—Stuart, Elliott.

MENTAL AND MORAL PHILOSOPHY.

B. A. ORDINARY.—*Class II.*—Cassels.

SECOND YEAR.—(*Logic*)—*Class I.*—Stuart. *Class III.*—Elliott.

ENGLISH.

SECOND YEAR.—(*Intermediate Ex.*)—*Class II.*—Stuart, Elliot.

FRENCH.

FOURTH YEAR.—*Class I.*—Cassels.

INTERMEDIATE.—*Class I.*—Stuart. *Class II.*—None. *Class III.*—Elliott.

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## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

SURVEYING.

MIDDLE YEAR.—*Class I.*—Weeks, Dawson, *Class II.*—Harvey, Batcheller, McLean, Robertson. *Class III.*—Boswell, Stevenson.

JUNIOR YEAR.—*Class I.*—McKercher, Hill. *Class II.*—Tatlow, Hodge, Belanger. *Class III.*—Young.

DRAWING.

SENIOR YEAR.—*Class I.*—Wicksteed, Stewart and McLeod, equal. *Class II.*—Brodie, Kennedy. *Class III.*—None.

MIDDLE YEAR.—*Class I.*—Weeks, Dawson. *Class II.*—Batcheller, Robertson, McLean *Class III.*—Boswell, Spencer, Harvey (C.), Frothingham (J.).

JUNIOR YEAR.—*Class I.*—Hill, Hodge. *Class II.*—McKercher, Tatlow. *Class III.*—Belanger, Young.

APPLIED MECHANICS.

SENIOR YEAR.—*Class I.*—Stewart, McLeod, Wicksteed, *Class II.*—None. *Class III.*—Brodie, Kennedy.

ELEMENTS OF MECHANISM.

SENIOR YEAR.—*Class I.*—Stewart and Wicksteed, equal. *Class II.*—Kennedy. *Class III.*—Brodie.

CONSTRUCTION.

SENIOR YEAR.—*Class I.*—Stewart, McLeod, Wicksteed. *Class II.*—Brodie. *Class III.*—Kennedy.

MIDDLE YEAR.—*Class I.*—Weeks and Dawson, equal. *Class II.*—Harvey (C.), McLean, Stevenson, Boswell. *Class III.*—Batcheller, Spencer, Frothingham and Robertson, equal.

DESIGNS AND ESTIMATES.

SENIOR YEAR.—*Class I.*—Wicksteed and McLeod, equal. *Class II.*—Brodie and Stewart, equal. *Class III.*—Kennedy.

AGGREGATE IN PRACTICAL SUBJECTS.

SENIOR YEAR.—*Class I.*—Stewart and McLeod, equal; Wicksteed. *Class II.*—Brodie. *Class III.*—Kennedy.

MIDDLE YEAR.—*Class I.*—Weeks (Prize), Dawson. *Class II.*—Batcheller, McLean, and Harvey (C), equal; Spencer. *Class III.*—Robertson, Boswell, Frothingham and Stevenson, equal.

JUNIOR YEAR.—*Class I.*—Hill (Prize), McKercher, Hodge. *Class II.*—Tatlow. *Class III.*—Belanger, Young.

MINING AND METALLURGY.

SENIOR YEAR.—(*Mining*)—*Class II.*—Torrance.

SENIOR YEAR.—(*Metallurgy*)—*Class I.*—Torrance.

SENIOR YEAR. (*Mineral Surveying and Drawing*).—*Class III.*—Torrance.

ASSAYING AND USE OF THE BLOWPIPE.

MIDDLE YEAR.—(*Assaying*)—*Class I.*—Spencer (prize). *Class II.* Stevenson. *Class III.*—None.

MIDDLE YEAR.—(*Use of the Blowpipe*)—*Class I.*—Spencer. *Class II.*—None. *Class III* Stevenson.

CHEMISTRY.

JUNIOR YEAR.—(*Chemistry*)—*Class I.*—None. *Class II.*—McKercher. *Class III.*—Tatlow, Hill, Hodge, Weeks.

MATHEMATICAL PHYSICS.

SENIOR YEAR.—*Class I.*—Stewart, Wicksteed (H.)— *Class II.*—McLeod (C. H.) *Class III* Brodie, Kennedy.

MIDDLE YEAR.—*Class I.*—Weeks, Harvey, (C.,) Dawson. *Class II.*—None. *Class III.*—Spencer, Robertson (G. E.,) Stevenson, Boswell, Batcheller, McLean.

MATHEMATICS.

MIDDLE YEAR.—*Class I.*—Harvey (C.). *Class II.*—Spencer, Boswell, Robertson, McLean. *Class III.*—Batcheller, Stevenson.

JUNIOR YEAR.—*Class I.*—McKercher. *Class II.*—Tatlow. *Class III.*—Hodge, Hill, Page.

EXPERIMENTAL PHYSICS.

SENIOR YEAR.—*Class I.*—Stewart, Wicksteed, McLeod (C. H.). *Class II.*—Brodie, Torrance. *Class III.*—None.

MIDDLE YEAR.—*Class I.*—Spencer and Weeks, equal, Harvey (C.), Dawson. *Class II.*—Robertson. *Class III.*—McLean, Batcheller and Stevenson, equal; Frothingham, Boswell.

GEOLOGY.

SENIOR YEAR.—(*Mining Course*)—*Class I.*—Torrance.

SENIOR YEAR.—(*Engineering Course*)—*Class I.*—Stewart. *Class II.*—Brodie, Wicksteed, McLeod.

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MIDDLE YEAR.—*Class I.*—Dawson (prize), Weeks (Professor's Prize). Spencer. *Class II* Harvey, McLean. *Class III.*—Frothingham, Boswell. Batcheller, Robertson.

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SENIOR YEAR.—*Class I.*—Wicksteed. *Class II.*—McLeod.

GERMAN.

SENIOR YEAR.—*Class I.*—Stewart. *Class II.*—Torrance. *Class III.*—Brodie.

MIDDLE YEAR.—*Class I.*—Harvey (C.), (prize), Dawson. *Class II.*—None. *Class III.*—Stevenson.

Students whose names appear in this list and in that of the Course in Arts, are those who have passed Examinations in subjects which are common to both Courses.

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| 1872 | Allan, John..... | " | $100 to $120 | Governors. |
| 1872 | Ward, G. B..... | Class. & Mod. Lan. | 125 | W. C. MacDonald, Esq. |
| 1872 | Hamey Charles ..... | " " " | 120 | Chas. Alexander, Esq. |

## EXHIBITIONS (Tenable for One Year.)

*Second Year.*

| Name of Exhibitioners. | Annual Value. | Founder or Donor. |
|---|---|---|
| Chandler, G. H..... | $125 | W. C. MacDonald, Esq. |
| Crothers, R. A..... | 125 | W. C. MacDonald, Esq. |

*First Year.*

| Student's Name. | Annual Value. | Founder or Donor. |
|---|---|---|
| McGoun A..... | $125 | W. C. MacDonald, Esq. |
| Watson A. J ..... | 125 | W. C. MacDonald, Esq. |
| Brodie, John..... | 100 | Mrs. Jane Redpath. |

Tupper, C. H.—Governor General's Exemption from Fees,

Anne Molson Mathematical Prize.—D C. McLeod.

Donald A. Stewart.—Scott Exhibition founded by the Caledonian Society of Montreal. Annual value $66.

# Students of the University.

*Session* 1872—1873.

## McGILL COLLEGE.

### FACULTY OF LAW.

Abbott, John Bethem, Montreal, Q
Archambault, Henri, St. Roch, Q
Baynes, O'Hara, Montreal, Q
†Bowie, Duncan Ewen, St. Eustache, Q
Chambers, A. Rusteed, Ireland,
†Chauret, Amédée, St. Genevieve, Q
Choquette, Frs. X. Varennes, Q
Corullard, Edouard, Q
†Coutlee, L. W. P., Hull, Q
Des Rivieres, Rodolphe, Q
†Desrosiers, Joseph St. Hughes, Q
Hackett, Michael, F. Q
Galbraith, William, O
Graham, J. H. Q
Hall, John, S. Q
Huntington, Russ Wood, Q
Hurd, Augustine, Q
Hodge, David, W. K. Eaton, Q
†Hutchinson, Matthew, Halifax, N. S
Jenkins, George E., Montreal, Q
Labadie, Marie T. A. Montreal, Q
Labadie, Yosef A. O., Montreal, Q
Larivière, Joseph, Montreal, Q
Lebourdeau, Steadman, Nuery, Q
†Labœuf, Louis Calixte, St. Timothée, Q
†Lonergan, James, Ste. Therese, Q
Major, David, Montebello, Q
†McDonald, Frank H., Acton Vale, Q
Nerrier, Dumase, Q
Norris, John Francis, Q
Panet, Edward A., Beauharnois, Q
Patterson, William, J. B., U. S
Poutre, Felix E., Montreal, Q
†Prefontaine, Raymond, Longueil, Q
†Rainville, H.B., St. Marie de Monnoir, Q
Robillard, Emile, St. Francois du Lac, Q
†Santoir, Camille, Longueil, Q
Spong, John J. R., Montreal, Q
Stephens, Chas. Henry, Eng'd
Walker, William G., Brantford, O

†B. C. L. 1873.

### FACULTY OF MEDICINE.

Alcorn, John H., Montreal, Q
Alguire, Duncan O., Lunenburg, O
Bain, Hugh U., Perth, O
Beers, Wm. G., Montreal, Q
†Bell, Robt. W., Carleton Place, O
Benson, Joseph B., Chatham, N. B
Bigelow, Horatio R., Boston Mass. U.S.
Birks, James B., Montreal, Q
Bomberry, George E., Tuscarora, O
Brossard, J. B. J., Laprairie, Q
†Brown, Harry, London, O
Brown, M. J., Stanstead, Q
Burland, Wm. H., Montreal, Q
Cameron, James C., Niagara Falls, O
†Carmichael, D. A., Beechburg, O
†Chevalier, N. E., St. Gregoire, Q
Christie, John H., Lachute, Q
Clarke, F. G B., Collingwood, O
Cline, John D., *B. A.*, Cornwall, O
Collison, Robert, Matilda, O
Colquhoun, George, Morrisburg, O
Cooke, Wm. H., Drummondville, Q
Cook, Guy R., Aultsville, O
Coyle, Henry W., Berthier, Q
Craig, Thornton, Glengarry, O
Cream, Thos. M., Quebec, Q
Crothers, Wm., Missisquoi, Q
†Cutler, Fred. A., St. Lawrence, Co., Vt
Dickinson, S. M., Cornwall, O
Dorland, James, Adolphustown, O
Dowling, John F., Appleton, O
Duncan, George C., Port Dover, O
†Edwards, Oliver C., Clarence, O
†Ellison, S. R., St. Thomas, O
Ewing, Wm., Hawkesbury, O
Falls, Samuel K., Huntley, O
Farley, James T., St. Thomas, O
†Farley, John J., Belleville, O
Foote, Henry S., Brooklyn, O
†Fortune, Lewis M., Huntingdon, Q
Fuller, Herbert C., Grand Rapids, Mich. U.S.
Garcelon, A. M., Lewiston, Me. U.S.
Gaviller, Edwin A., Bondhead, O
Gibson, Goodman, Montreal, Q
Gilbert, Henry L., Sherbrooke, Q
Goodhue, P. J., Danville, Q
Graham, Kenneth D., Ottawa, O
Gray, John S., Iroquois, O
†Guest, Thomas F., Perth, O

Gunn, Robert E., Broadcove, N.S
Harrington, E. B. C., Shediac, N. B
Hanover, Wm. Pakenham, O
Harvey, W. A., Newbridge, O
Henderson, E. G., Belleville, O
Hickey, Samuel A., E., Williamsburg, O
†Hils, Joseph, St. Gregoire. Q
Hockridge, Thos. G., Bradford, O
Hume, Wm. L., Leeds, Q
Hunt, Henry, Glengarry, O
Hunter, Wm. M., Cornwall, O
†Hurlburt, R. W., Mitchell, O
Jackson, Wm. F., Brockville, O
Jamieson, Thos A., Glengarry, O
Jones, Chas. R., Hastings, O
Jones, George N., St Andrews, Q
†Jones, H. J. M., Hastings. O
Kearney, Wm. J., Montreal, Q
†Kelly, Thomas, Durham, O
†Kittson, Edmund G., Hamilton, O
Lang, C. McL., Sydenham, O
Langlois, O., Windsor, O
Lauder, John, Montreal, Q
Levi, Reuben, Montreal, Q
Liever, Henry F., Boston, Mass. U.S.
Lindsay, N. J., Mount Brydges, O
Livingstone, Joseph, East Flamboro, O
MacDonald, Rod'k. Cornwall, O
†MacLeod, James, Uigg, P. E. I
†Maguire, B. D., Joliette, Q
Mattice, Rich. J., Moulinette, O
May, Harold, Montreal, Q
McArthur, John A., Lobo, O
McBain, John, Williamstown, O
†McConnell, J. B., Chatham, Q
McCormick. Andrew G., Durham, Q
McDermid, Wm., Martintown, O
†McDiarmid, James, Beckwith, O
McDonald, Alex. R., Texas, U. S
†McDonald, J. D. A., St. Francois du Lac, Q
McDonell, Alex. R., Loch Garry, O
McIlmoyle, Allen H., Matilda, O
McKay, George, Embro, O
McLaren, J. R., Montreal, Q
McMillan, Aneas J., Edwardsburg, O
McMillan, Allan D., Dundee, Q
McQuillen, James, Marquette, U. S
McRae, George, Renfrew, O
McRae, John D., Glengarry, O
Metcalfe, Henry J., Riceville, O
Mines, W. W., Montreal, Q
Molson, W. A., Montreal, Q
Monk, George H., Montreal, Q
Moore, Chas. S., London, O
Moore, J. T., Norwich, O
Murray, Chas. H., Montreal, Q
Nason, James R., Weston, O
Nelles, James M., Brantford, O
Norton, Thomas, Montreal, Q
†O'Brian, R. S. B., L'Orignal, O
†O'Brien, David, Almonte, O
Pattee, Richard P., Hawkesbury, O
†Perry, H. R., Coteau Landing, Q
Phelan, James Stratford, O
Pinsoneault, B., Montreal, Q
Powell, Robt. W., Ottawa, O
Prosser, Wm. O., Lunenburg, O
Quinones, Euleteris, New York, N. Y
Rattray, C. J., Portage du Fort, Q
Reddick, Robert, Prescott, O
Reddy, Herbert L., Montreal, Q
†Richmond, Peter T., New York, U. S
Ritchie, John, Halifax, N. S
Robinson, S. J., Brantford, O
Rogers, Amos, Bradford, O
Ross, Wm. D., Ottawa, O
Ryan, Philip M., Halifax, N. S
Secord, Levi, Brantford, O
Scott, Wm. F., Hull, Q
†Shepherd, F. J., Montreal, Q
Sinclair, Coll, St. Thomas, O
Smith, Allen S., Stirling, O
Smith, Wm., Lachute, Q
Snider, Fred. S., Simcoe, O
Speer, Andrew M., Richmond, Q
Stevenson, Chas. N., Sarnia, O
†Stevenson, John A., Cayuga, O
Stroud, Chas. S., Montreal, Q
Sutherland, Walter, Helena, Q
†Tracy, Andrew W., Island Pond, Vt
Tunstall, S. J., Montreal, Q
Wales, Benjamin N., St. Andrews, Q
Wallace, Isaac W., Milton, Q
†Walton, George O. D., Montreal, Q
Ward, Michael O. B., Montreal, Q
†Ward, William T., Boundary Line, Q
Weir, Somerville, Montreal, Q
Wells, James P., Vankleek Hill, O
†Whiteford, James W., Belleville, O
Wigle, Hiram, Kingsville, O
Woods, J. J. E., Aylmer, Q
Woolway, C. J., St. Mary's, O
Young, Philip R., Clarenceville, Q
†Young, Robert C., Barton, O
Yuill, Wm. R., Co. Huron, O

†M. D., C. M. 1873.

## FACULTY OF ARTS.

### (1) *Undergraduates.*

†Allan, James G., Locke's Island, N. S
Allan, John, Leeds, Q
Allan, John Smith, Montreal, Q
Amaron, Calvin E., " Q
Black, James R., Rochester, U.S
Brown, Jonathan N., Stanstead, Q
Brodie, John, Georgetown, Q
Chandler, George H., Brome, Q
Cox, Jacob Whitman, Cornwallis, N.S
Craig, James, Arnprior, Q

| | |
|---|---|
| Crothers, Robert A., Venice, Q | †McLeod, Duncan C., Wigg, P. E. I. |
| Dawson, William B., Montreal, Q | McGoun, Archibald, Montreal, Q |
| Dewey, Finlay McN., St. Remi, Q | McLemore, Thos. J., Brownsville, U.S |
| Denovan, Alexander, Montreal, Q | McOuat, John L., Lachute, Q |
| Duffy, Thomas, Durham, Q | Malcolm, Finlay, Scotland, O |
| Eccles, Robert H., Lancashire, Eng. | Morton, Alfred Clarence, King, O |
| Elliott, William B., Iroquois, O | Matheson, John, |
| †Fleet, Charles J. R., Montreal, Q | †Murray, Charles H., Montreal, Q |
| Gray, William H., Fleurant, Q | Pelletier, Edward D., Kankakee, U.S |
| Graham, John, Kemptville, O | Reddy, Herbert L., Montreal, Q |
| Greenshields, Samuel, Montreal, Q | †Ritchie, Arthur F., Montreal, Q |
| Griffith, Joseph, Montreal, Q | Ritchie, W. F., Montreal, Q |
| Hall, John G. L., Lachine, Q | Rexford, Elson J. S., Bolton, Q |
| Harvey, Alfred, St. Johns, N.F | Ross, Wm. Lord, Montreal, Q |
| Harvey, Charles, " N.F | Stevenson, James, Q |
| Hawley, David F., Aird, Q | Taylor, Archibald D., Montreal, Q |
| Howe, Henry S. A., Montreal, Q | Taylor, Ernest M., Potton, Q |
| Jenkins, Stewart R. W., Montreal, Q | Thomas, Henry W., Montreal. Q |
| Joseph, Henry, Montreal, Q | †Tunstall, Simon J., Montreal, Q |
| Lyman, Henry Herbert, Montreal, Q | Tupper, Charles H., Ottawa, O |
| †MacDonnell, Rich. L., Montreal, Q | Ward, George B., Boundary Line, Q |
| McKibbin, William M., Montreal, Q | Watson, Alindus J., Huntingdon, Q |
| McLennan, John S., Montreal, Q | Wellwood, James, Gananoque, Q |

†B.A., 1873.

## DEPARTMEENT OF PRACTICAL AND APPLIED SCIENCE.

| | |
|---|---|
| Boswell, St. George J., Quebec, Q | ‡Page, John, Ottawa, O |
| Batcheller, Alvan A., Bedford, Q | Robertson, George E., Montreal, Q |
| *Brodie, Robert J. N., Georgetown, Q | ‡Richardson, Edwin, Hemmingford, Q |
| ‡Belanger, P., L'Islet, Q | Rodger, D., Montreal, Q |
| Burke, Joseph, St. Thomas, Q | Spencer, Joseph W., Hamilton, O |
| ‡Dawson, W. B., Montreal, Q | ‡Slater, James A., Ottawa, O |
| ‡Fleming, Frank A., Ottawa, Q | *Stewart, Donald A., Whycocomagh, N.S |
| Frothingham, John J., Montreal, Q | Stevenson, Samuel C., Montreal, Q |
| Hill, Arthur E., Sydney, C.B | Tatlow, Robert, Cavan, Ireland. |
| Harvey, Charles, St. John's, N.F | *Torrance, John F., B.A., Montreal, Q |
| Hodge, George A., Eaton, Q | *Wicksteed, Henry K., Ottawa, O |
| *Kennedy, George T., M.A., Montreal, Q | ‡Wilson, Robert A., O |
| McLean, J. A., Lancaster, O | Weeks, Robert T., Charlottetown, P E I. |
| McKercher, John, Roxbury, O | ‡Young, J. C., Montreal, Q |
| *McLeod, Clement H., Broad Cove, N.S | |

‡Partial or Occasional. *Ba. Ap. Sc., 1873.

(2) *Partial or Occasional.*

| | |
|---|---|
| Allworth, J., B.A. | McPhee, Norman |
| Brugette, T. | McIntosh, William |
| Brugette, C. | McKay, G. |
| Currie, D. | McLeod, Finlay, B.A. |
| Dorion, Charles | Nighswander, David D. |
| Estes, Frank M. | O'Brien, Robert |
| Huntington, Russ W. | Papineau, Benjamin G. |
| Hamilton, Robert | Paradis, N. R. |
| Jenkins, G. E. | Russell, W. D. |
| Kelly, Thomas | Rivard, Francis |
| McRae, D. | Silcox, J. B. |
| McLennan, Finlay | Silcox, E. D. |
| McGregor, Hugh | Watt, Robert |

# MORRIN COLLEGE.

*Session* 1873.

## FACULTY OF ARTS.

(1) *Undergraduates.*

| | | | | | |
|---|---|---|---|---|---|
| Bennett, Wm. Sloane, | Quebec, | Q | Sloane, William P., | Toronto, | |
| Cassels, Hamilton, | " | Q | Soncy, Wm. O., | Quebec, | Q |
| Eliott, Adam J., | " | Q | Stuart, Gustavus, | " | Q |
| Paterson, J. T. | | Scotland | Thomson, George, | " | Q |
| McDonald, Simon, | " | Q | | | |

(2) *Partial and Occasional.*

| | | | |
|---|---|---|---|
| Hughes, Robert, | Scotland. | Knight, George | O |
| Morrison, David W.. | do | Knight, F. | Q |
| Auld, Joseph, | Q | Lloyd, Arthur | Q |
| Aude, Fr. | Germany | Morgan, R. A. | Eng |
| Bennett, S. | Q | Morgan, F. | Eng |
| Buchner, G. | Germany | Miles, Robert | Q |
| Brown, John | Q | Mountain, A. | Q |
| Cairns,C. C. | Q | Paverley, Ralph | Q |
| Craig, Robert | Q | Philip, J. T. | Q |
| Douglas, Bolton | Q | Patterson, A. | Q |
| Dunlop, J. J. | Q | Patterson, James | Q |
| Duggan, William | Q | Rousseau, A. | Q |
| Fraser, Kenneth | Q | Ray, Walter | Q |
| Fletcher, S. | Q | Richardson, T. A. | Q |
| Grant, Robert | Q | Simms, A. | Q |
| Green, James | Q | Smyth, John | Q |
| Hearn, John | Ireland | Sampson, R. | Q |
| Hethrington, James | Q | Oliver, T. M. | Q |
| Hethrington, F. | Q | Watters, A. | Scotland |
| Johnston, J. M. | Q | Wurtele, F. C. | Q |

Beside 126 Students entered in special Classes of Chemistry and Physical Geography

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# ST. FRANCIS COLLEGE.

## FACULTY OF ARTS.

(1) *Undergraduates.*

| | | | |
|---|---|---|---|
| Cooke, Wm. Henry, Drummondville, | Q | McKillop, R., Inverness, | Q |
| McConochy, John A., Leeds, | Q | Ross, D. A., Woodstock, | Q |
| Duffy, H. T., Durham, | Q | Young, J. C., Melbourne, | Q |
| Greenshields, J. W. | Q | | |

(2) *Occasional Students.*

| | | | |
|---|---|---|---|
| Cochrane, J. J., Leeds, | O | Reilly, James, Sherbrooke, | Q |
| McRae, Donald, Notfield, | O | Tisdale, ———, Melbourne, | Q |

## SUMMARY.

| | |
|---|---|
| Students in Law, McGill College, | 40 |
| " in Medicine, " | 154 |
| " in Arts, " | 112 |
| " " Morrin College, | 175 |
| " " St. Francis College, | 11 |
| | 492 |
| Deduct entered in two Faculties, | 6 |
| Total number of Students in College, | 486 |
| Students in Normal School, | 116 |
| Pupils in Model Schools, | 338 |
| Total Students and Pupils, | 940 |

# Passed the University Examinations.

*Session* 1873–4.

## FACULTY OF LAW.

PASSED FOR THE DEGREE OF B. C. L.*

Bowie, Duncan Ewen,
Chauret, Amedie,
Coutlee, Lewis William Poitras,
Desrosiers, Joseph,
Hutchinson, Matthew,
Lebœuf, Louis Calixte,
Lonergan, James,
McDonald, Frank Herrall,
Prefontaine, Raymond,
Rainville, Henri Benjamin,
Santoire, Camille.

BACHELOR OF CIVIL LAW PROCEEDING TO THE DEGREE OF D. C. L.

Doutre, Gonzalve, B. C. L.

## FACULTY OF MEDICINE.

PASSED FOR THE DEGREE OF M.D., C. M.*

Alguire, Duncan O., Lunenburg, O
Bell, Robert W., Carleton Place, O
Brown, Harry, London, O
Carmichael, Duncan A., Beechburg, O
Chevalier, Nap E., St. Gregoire le Grand, Q
Cutter, Fred A., Hopkinton, N. Y., U.S.
Edwards, Oliver C., Clarence, O
Ellison, Saram R., St. Thomas, O
Ewing, W., Hawkesbury, O
Farley, John J., Belleville, O
Fortune, Lewis M., Huntingdon, Q
Gaviller, Edwin A., Bond Head, O
Guest, Thomas F., St. Mary's, O
Hils, Joseph, St. Gregoire, Q
Hurlburt, Richard F., Mitchell, O
Jackson, William F., Brockville, O
Jones, H. J. Montgomery, Montreal, Q
Kelly, Thomas, Durham, O
Kittson, Edmund G., Hamilton, O
McGuire, Bernard D., Jolliette, Q
McConnell, John B., Chatham, Q
McDiarmid, James, Prospect, Q
McDonald, Jos. D. A., St. Francois du Lac, Q
McLeod, James, Uigg, P. E. I
O'Brien, Robert S. B., L'Original, O
O'Brien, David, Almonte, O
Perry, Hezekiah R., Coteau Landing, Q
Richmond, Peter E., N. Y. State, U.S
Shepherd, Francis J., Montreal, Q
Stephenson, John A., Cayuga, O
Tracy, Andrew W., Island Pond, U.S
Walton, Geo. O., Montreal, Q
Ward, William T., Boundary Line, Q
Whiteford, James W., Belleville, O
Young, Robert C., Barton, O

PASSED THE PRIMARY EXAMINATION.*

Bigelow, Horatio C., Boston, U.S
Cameron, James C., Montreal, Q
Chevalier, Nap, St. Gregoire le Grande, Q
Cline, John D., B.A., Cornwall, O
Cutter, F. A., Hopkinton, N. Y., U.S
Harvey, Wellman A., Newbridge, O
Henderson, Edward G., Belleville, O
Hickey, Samuel A., B.A., Aultsville, O
Hockridge, Thomas G., Bradford, O
Hume, William L., Leeds, Q
Jones, Charles R., Hastings, O
Jones, Geo. Nelson, St. Andrews, Q
MacDouald, Roderick A., Cornwall, O
McBain, John, Williamstown, O
McCormick, Andrew G., Durham, Q
McDonnell, Alex. R., Loch Garry, O
McMillan, Æneas J., Edwardsburgh, O
Mines, William M., Montreal, Q

*Arranged alphabetically.

| | | | |
|---|---|---|---|
| Molson, William A., Montreal, | Q | Reddick, Robert, Prescott, | O |
| Monk, George Henry, " | Q | Ritchie, John L., Halifax, Nova Scotia | |
| Moore, Charles S., London, | O | Rogers, Amos, Bradford, | O |
| Moore, Jehiel T., Holbrook, | O | Sinclair, Coll, St. Thomas, | O |
| Norton, Thomas, Montreal, | Q | Speer, Andrew M., Richmond, | Q |
| Pattee, Richard P., Hawkesbury, | O | Wales, Benjamin N., St. Andrews, | Q |
| Phelan, James, Stratford, | O | Wallace, Isaac W., Milton, | Q |
| Prosser, William O., Lunenburg, | O | Woolway, Christopher J., St. Mary's | O |
| Rattray, James C., Portage du Fort, | Q | | |

## FACULTY OF ARTS.

### PASSED FOR THE DEGREE OF B. A.

M'GILL COLLEGE.

*In Honours.*

(Alphabetically Arranged.)

JAMES G. ALLAN.
CHARLES J. FLEET.
RICHARD L. MACDONNELL.
DUNCAN C. MCLEOD.
CHARLES H. MURRAY.
HERBERT L. REDDY.
ARTHUR F. RITCHIE.
SIMON J. TUNSTALL.

MORRIN COLLEGE.

*Ordinary.*

HAMILTON CASSELLS.

### PASSED FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

*Course of Civil and Mechanical Engineering.*

(In order of relative standing.)

STEWART, DONALD A.
WICKSTEED, HENRY K.
MCLEOD, CLEMENT H.
BRODIE, ROBERT J.
KENNEDY, GEORGE T., M.A.

*Course of Mining and Assaying.*

TORRANCE, JOHN FRASER.

### PASSED IN THE INTERMEDIATE EXAMINATION.

*McGill College.*

*Class I.*—GEORGE H. CHANDLER, ELSON J. REXFORD.
*Class II.*—ALEXANDER DENOVAN, DAVID F. HAWLEY, ROBERT H. ECCLES.
*Class III.*—W. F. RITCHIE, FINLAY MALCOLM.

*Morrin College.*

*Class I.*—GUSTAVUS STUART.
*Class II.*—A. G. ELLIOTT.

*Bachelors of Arts proceeding to the degree of M. A. in Course.*

JOHN HINDLEY.
MONTGOMERY JONES.
JOHN MCINTOSH.

# Graduates of the University.

## DOCTORS OF DIVINITY.

*Bethune, Rev. John. (ad eundem) 1843
*Falloon, Rev. Daniel, [Hon.]....1844

## DOCTORS OF LAWS AND OF CIVIL LAWS.

*Abbott, Christopher, B. C. L. [D. C. L. in course]....1862
Abbott, Hon. J. J. C., B. C. L., [D. C. L. in course]....1867
Adamson, Rev. Wm. A., [D. C. L. hon]....1850
Badgley, Hon. Wm. [D. C. L. hon] 1843
Bancroft, Rev. C., D.D [L.L.D. hon]....1870
Bond, Rev. Wm., M.A., [LL.D. hon.]....1870
Browne Dunbar, M.A., B.C.L., [DC.L. in course]....1871
Chamberlin, B., M.A. B.C. L. [D.C.L. in course]....1867
Chauveau, Hon. Pierre J. O., [LL.D. hon.]....1857
Cordner, Rev. John, [LL.D. hon] 1870
Cornish, Rev. George, M.A., [LL. D. in course]....1872
Davies, Rev. Benjamin, Ph. D. [LL.D. hon]....1856
Dawson, John William, M.A., [LL.D. hon]....1857
DeSola, Rev. A.,[LL.D. hon.]....1858
Douglas, Rev. Geo., [LL. D. hon.] 1870
Doutre, Gonsalve, B.C.L. [D.C.L. in course]....1873
*Falloon, Rev. D., D.D.,[LL.D. hon.]....1862
*Head, Right Hon. Sir Edmund W Baronet, M.A., [LL.D. hon]....1863
Hemming, Edward J., B.C.L., [D.C.L. in course]....1871
*Holmes, Andrew F., M.D., [LL.D hon.]....1858
Howe, Henry A., M.A., [LL.D. hon.]....1870
Hunt, T. Sterry, M.A., (LL.D hon]....1865
Kerr, William H. [D. C. L. in course]....1873
Laflamme, R. G., B.C.L., [D. C. L. in course]....1873
Lawson, G., Ph. D., [LL.D. hon.] 1862
Lafrenaye, P. R. B.C.L., [D. C. L. in course]....1873
Leach, Rev. Wm. T., M.A., [D. C. L. hon]....1849
[LL.D. hon.]....1857
Logan, Sir William. E., Kt., [LL. D hon.]....1856
*Lundy, Rev. Francis, [D.C.L hon.]....1843
Lyall, Rev. W., [LL.D. hon.]....1864
MacVicar, Rev. D. H., [LL.D. hon]1870
Meredith, Edmund A., B. C. L., [LL.D. hon.]....1857
Miles, Hy. H., M.A.,[LL.D., hon] 1866
Morris, Alexander, M. A., B.C.L., [D.C.L. in course]....1862
Rollitt. Albert K., LL.D. London Univ. [LL.D. ad eun.]....1871
Smallwood, Charles, M.D,, [LL.D. hon.]....1856
*Smith, William, [LL .D. hon.]....1858
*Valieres de St. Real, Hon. J, R., [D.C.L. hon.]....1844
Wickes, Rev, W. D., [LL.D. hon]....1868
Wilkes, Rev. Henry, D.D., M.A., [LL.D. hon.]....1870

## DOCTORS OF MEDICINE.

Adsetts, John....1866
Alexander, Robt. A....1871
Alguire, Duncan O....1873
Allen, Hamilton....1872
Alloway, Thomas Johnson....1869
Anderson, Alexander....1866
Anderson, John C....1865
Archer, Thomas....1869
Ardagh, Johnson....1869
*Arnoldi, Daniel, Montreal.[Hon]..1847
Atkinson, Robt....1862
Ault, Alexander....1860
Ault, Charles....1855
Ault, James F....1855
Ault, Edwin D....1868
Austin, Fred. John....1862
Aylen, John....1857
Aylen, James....1863

Backhouse, John B.....1870
Bain, D. S. E., Staff Surgeon Maj...1868
Baird, James.....1870
Baker, Albert.....1848
Barclay, George.....1870
*Barnston, James..... [ad eun].....1856
Battersby, Charles.....1861
Baynes, George Aylmer.....1869
Beattie, David.....1862
Beaudet, Alfred.....1865
Beaudry, Lewis H.....1871
Bell, John, M.A.....1866
Bell, Robert W.....1873
Bellew, Alfred.....1852
Bergeron, Joseph.....1870
Bergin, Darby.....1847
Bessey, William E.....1863
Bender, Prosper.....1865
Bibaud, Jean, G. J.....1843
Blackader, Alex. D., B. A.....1871
Blacklock, John J.....1851
*Blanchet, J. B.....1863
Blair, Robt. C.....1865
Bligh, John W.....1865
Bogart, Irvine.....1859
Boulter, George Henry.....1852
Boyer, Louis.....1842
*Boylan, Andrew A.....1857
*Bowman, William Edward.....1860
Bower, Silas J.....1865
Bradley, William.....1869
Brathwait, Francis H.....1863
Brandon, John.....1867
Breslin, William Irwin, Asst. Surgeon 46th Regiment of Line, 1847
Brigham, Josiah S.....1848
Brissett, Henry R.....1871
Bristol, Ames S.....1850
Brodeur, Alphonse.....1863
Brooks, Samuel T.....1851
Brouse, William H.....1847
Brown, Peter E.....1863
Brown, Harry.....1873
Browne, Arthur A., B.A.....1872
Browse, Jacob E.....1861
Bruneau, Adolphe.....1853
*Bruneau, Oliver T..... [Hon] 1843
Bruneau, Onesime.....1851
Bryson, William G.....1867
Bucke, Richard Maurice.....1862
Bucke, Edward H.....1852
Buckle, John M. C.....1869
Buckley, William P.....1870
Bull, George Joseph.....1869
Bullen, Charles F.....1864
Burgess, John A.....1868
Burch, Benjamin T.....1865
Burland, John H.....1863
Burland, Wm. B.....1872
Burrows, Philip.....1866
Burnham, Robert Wilkins.....1860
Burns, Alfred J.....1854
Burritt, Horarto C.....1863

Butler, George C.....1865
*Buxton, John N.....1849
Campbell, Donald Peter.....1862
Campbell, Francis Wayland.....1860
Campbell, Geo. W., M.A., [ad eun].1843
Campbell, Samuel.....1866
Campbell, John.....1869
Carmichael, Duncan A.....1873
Carey, Augur D.L.....[ad. eun].1864
Cassidy, David M.....1867
Cassidy, John F.....1865
Carroll, Robert W. W.....1859
Carson, Augustus.....1843
Carter, Samuel A.....1859
Casgrain, Charles E.....1851
Cattanach, Andrew J.....1871
Chagnon, Vinceslaus G.B.....1861
*Challinor, Francis.....1849
Cherry, William.....1869
*Chesley, George Ashbold.....1862
Chevalier, Gustave.....1860
Chevalier, Napoleon E.....1873
Chipman, Clarence J. H., B.A.....1868
Christie, John B.....1865
Christie, Thomas.....1848
Church, Charles Howard.....1862
Church, Clarence R.....1867
Church, Coller M.....1855
Church, Levi R.....1857
Church, Mills Kemble.....1864
Church, Peter H.....1846
Clarke, Octavius H. E.....1870
Clarke, Wallace, B.A.....1871
Clark, Richard A.....1870
Clemesha, John Wordsworth.....1867
Clement, Victor A.....1869
Cluness, Daniel.....1870
Codd, Alfred.....1865
Collins, Charles W.....1869
Comeau, John B.....1870
Cooke, Charles H.....1866
Cooke, Herman L.....1867
Cooke, Sidney P.....1869
Copeland, Wm. L.....1872
Corbett, Augustus M.....1854
Corbett, William H.....1854
Corlis, Josiah.....1869
Carson, John.....1866
*Cowley, Thomas Mc J.....1870
Cox, Frank.....1869
Craik, Robert.....1854
Cram, Daniel C.....1872
*Crawford, James.....(ad eun)..1854
Crichton, Stuart.....1865
*Culver, Joseph R.....1848
*Cunynghame, W. C. Thurlow.....1858
Cutter, Frederick A.....1873
Daly, Guy D. F.....1868
Dansereau, Charles.....1842
Dansereau, Charles.....1869
Dansereau, Pierre.....1855
D'Avignon, Fred. F.....1871
*Dease, Peter Warren.....1847

DeBonald, W. S.....1862
DeBoucherville, Charles B.....1843
DeGrosbois, T. B.....1868
Demorest, Durham, G. G.....1852
Desaulniers, Antoine A.....1863
DeCelles, Charles D.....1841
Dupuis, Joseph G. P.....1856
Dice, George.....1864
*Dick, James R.....1842
Dickinson, James J.....1846
*Dickinson, George.....1867
Dickson, William W.....1863
Digby, James Winnit.....1866
Dodd, John.....1843
Donnelly, Charles H.....1866
*Dorion, Severe.....1843
*Dorland, Enoch P.....1850
Dougan, William.....1867
Douglas, James.....[Hon]...1847
Drake, Joseph M.....1861
Dubuc, Charlemagné.....1864
*Duckett, Stephen.....1853
Duckett, William A.....1859
Dufort, Thadee A.....1865
Duhamel, Louis.....1860
Duncan, George.....1866
Duncan, Gideon M.....1871
Duncan, James S.....1858
*Duncan, John.....1871
*Dunn, William Oscar.....1843
Dunsmore, John M.....1870
Easton, John.....1852
Edwards, Eliphalet G.....1855
Edwards, Oliver C.....1873
Elkinton, Arthur G., Asst. Surgeon, Scotts Fusileer Guards.....1862
Ellison, Saram, R.....1873
Emery, Gordon J.....1857
Emery, Allard.....1866
English, T. F.....1858
Erskine, John.....1860
Ethier, Calixte.....1867
Evans, Griffith.....1864
Ewing, W.....1873
Falkner, Alexander.....1866
Farewell, G. McGill.....1872
Farewell, W. G.....1868
Farley, John J.....1873
Faulkner, George W.....1871
Fenwick, George Edgeworth.....1847
Fergusson, Alexander A.....1864
Fergusson, Alex. A.....1866
Finlayson, John.....1834
Finnie, John T.....1869
*Fisher, John.....1848
Fitzgerald, James.....1865
Fortin, Pierre.....1845
Fortune, Lewis M.....1873
*Foster, Stephen Sewell.....1846
Fraleigh, William S.....1869
Fraser, William.....1836
Fraser, William H.....1867
Fraser, Donald M.....1869
Fraser, Donald.....1868
Freeman, Charles M.....1871
Fuller, W.....1866
Fuller, Horace L.....1870
Fulton, James H.....1863
Garvey, Joseph.....1852
Gardner, Matthew.....1871
Gardner, William.....1867
Gascoyne, George E., Staff Asst. Surgeon.....1861
Gaviller, Edwin A.....1873
Gauvreau, Elzéar.....1855
Gauvreau, Lewis H.....1836
Gendron, Thomas.....1866
Gernon, George W.....1872
Gibb, George D.....1846
Gibson, John B.....1855
*Gibson, Edward B.....1864
Gillies, John.....1867
Gilmour, Angus.....1868
*Giroux, Philippe.....1859
Girdwood, Gilbert P.....1865
Glenn, C. W. E.....1858
Godfrey, Robert.....1845
Godfrey, Abraham C.....1865
Goforth, Franklin.....1863
Gordon, Robert.....1868
Gordon, William Wallace.....1863
Graham, Charles E.....1866
Graham, Henry.....1863
Grant, Donald J.....1863
Grant, James A.....1854
Grant, William.....1867
Grenier, L. P. A.....1863
Guest, Thomas A.....1873
Gunn, James.....1861
Gustin, William Claude.....1863
Hagarty, Dan. M. J.....1868
*Hall, Archibald.....(ad eun).....1843
Hall, James B.....1866
Hall, J. W.....1848
Halliday, James T.....1866
Hamilton, Andrew W.....1859
Hamilton Charles S.....1868
Hamilton, John R.....1871
Hamilton, Rufus Edward.....1861
Hamel, Joseph Alexander.....1856
Hammond, James H,.....1869
Harding, F. W.....1868
Harkin, Henry.....1867
Harkin, William.....1858
Harkness, John.....1862
Harkness, Andrew.....1869
Harrison, David Howard.....1864
Hart, Frederick W.....1835
Hays, James.....1866
Hebert, P. Zotique.....1872
†Henderson, Alexander A.....1870
*Henderson, Peter.....1843
*Henry, Walter.....(Hon)..1853
Henry, Walter J.....1856
Harvey, Jones J. G.....1866
Hethrington, Harry.....1872

Hickey, Charles E.....1866
Hils, Joseph.....1873
Hingston, W. H.....1851
Holden, Rufus.....1844
Hollwell, John.....1868
*Holmes, Andrew F.....(ad eun)....1843
Howard, James.....1867
Howard, Robert.....1872
Howard, R. Palmer.....1848
Howden, Robert.....1857
Howitt, William H.....1870
Howland, Francis D.....1867
Hulbert, Edward Augustus.....1860
Hulbert, George W.....1859
Hunt, J. H., L. R. C. S. I.....1869
Hunt, Lewis G.....1871
†Hurd, Edward P.....1865
Hurlburt, Richard F.....1873
Irvine, James C.....1866
Ives, Eli.....1863
*Jackson, A. Thomas, Staff Surgeon in the Army.....1846
Jackson, William F.....1873
Johnston, J. C., Asst. Surg. R. A....1867
Johnston, Thomas G.....1871
*Jones, Thomas W.....[ad eun]...1854
Jones, Jonathan C.....1865
Jones W. Justus.....1856
Jones, H. J. Montgomery.....1873
Keefer, Wiltiam N., B.A.....1869
*Keefer, Thomas.....1859
†Kelly, Clinton Wayne.....1867
*Kelly, Wm. Surg'n Royl. Artl.....1846
†Kelly, Thomas.....1873
Kemp, William.....1864
Kennedy, Richard, A.....1864
*Kerr, James.....1858
Killery, St. John, Staff Asst. Surg...1862
King, Wm. M. H.....1859
King, Reginald A. D.....1868
King, Richard A.....1867
*Kirkpatrick, A.....1856
Kittson, John G.....1869
Kittson, Edmund G.....1873
Knowles, James A.....1866
Kollmyer, Alex. H.....1865
Laberge, Ed.....1856
*Lang, Thos. D.....1869
Langrell, Richard T.....1865
Larocque, A. B.....1847
Law, D. W. C.....1868
Lawrence, Henry G. H., Asst. Surg., Grenadier Guards.....1862
Leavitt, Julius.....1866
Leclair, George.....1851
Leclair, Napoléon.....1861
Lee, James C.....1856
*Lee, John Rolph.....1848
Legault, Daniel.....1868
Lemoine, Charles.....1850
Lepailleur, Leonard.....1848
Leprohon, John L.....1843
Lindsay, Heriot.....1861
Lister, James.....1862
Locke, C. T. A.....1872
Logan, David D.....1842
Logie, William.....1833
*Long, Alexander.....1844
Longley, Edmund.....1866
Longpre, Pierre F.....1848
Loupret, Andre.....1850
Loux, William.....1870
Loverin, Nelson.....1855
Lovett, William.....1870
†Lucus, T. D'Arcy.....1869
Lundy, Edward Lewis, Staff Asst.. Surgeon.....1862
Lyon, Arthur.....1861
MacDonald, Angus.....1863
*MacDonald, Colin.....1853
MacDonald, Roderick.....1834
MacIntosh, Robert.....1863
Mack, Francis Lewis.....1862
Mackie, John R.....1865
*Macklem, Samuel S.....1859
MacNabb, Francis A. L.....1870
Madill, John.....1867
Major, George W., B. A.....1871
Malcolm. John Rolph.....1861
*Mailhot, Alfred.....1846
Malloch, Edward C.....1863
Malloch, William B.....1867
Mallory, Albert S.....1872
Marcean, Louis T.....1872
Markell, Richard.....1867
*Marr, Israel P.....1849
Marr, Walker H.....1859
Marston, Alonzo W.....1871
Marston, John J.....1867
Mason, James Lindsey, M. A.....1863
†Mathieson, John H.....1870
Mathieson, Niel.....1870
Mayrand, William.....1847
McArthur, Robert D.....1867
McCallum, Duncan C.....1850
McCarthy, William.....1867
McConkey, J. C.....1872
McConnell, John B.....1873
*McCord, John D.....1864
McCrimmon, Donald A.....1869
*McCulloch, Michael.....(Hon).1843
McCurdy, John.....1866
*MacDiarmid, John Duncan, Staff Surgeon in the Army.....1847
McDiarmid Donald.....1867
McDiarmid James.....1873
McDonald, Jos D. A.....1873
McDonnell Angus.....1852
McDonnell, Æneas.....1849
McDougall, Peter A.....1847
McDougall, Peter A.....1864
McEwen, Findlay.....1870
MacFarlane, William.....1869
Macfie, James.....1869
McGarry, James.....1858
McGeachy, William.....1867

McGill, William.....1848
McGillivary, Donald.....1861
McGowan, Henry W.....1867
McGrath, Thomas.....1849
McGregor, Duncan.....1861
McGuire, Bernard D.....1873
McInnes, Walter J.....1865
McIntosh, James.....1859
McIntosh, Donald J.....1870
McIntyre, Peter A.....1867
McKelcan, George Lloyd.....1860
McKay, John.....1869
McKay, Walter.....1854
McLaren, Peter.....1861
McLaren, Peter.....1869
McLaren, Peter.....1872
McLean, Alexander.....1860
McLean, Archibald.....1867
McLeod, James.....1873
McMicking, George.....1851
McMillan, John.....1857
McMillan, Louis J. A.....1860
McMurray, Samuel.....1841
*McNaughton, E. P.....1849
McNeece, James.....1866
McTaggert, Alexander.....1869
McVean, John M.....1865
Meane, John, M. R. C. S. L., Staff Surgeon Major.....1869
Meigs, Malcolm R.....1865
*Meredith, Thomas L. B.....1842
Migneault Henri Adolphe.....1860
Miller, Robert.....1870
Mitchel, Fred, H.....1871
Moffatt, John Edward, Staff Surg....1862
Moffatt, Walter.....1868
Mondelet Wm, H.....1868
Mongenais, Napoleon.....1865
Mount, John W.....1855
Moore, Joseph.....1852
Moore, Richard.....1853
Moore, Robert C.....1869
*Morin, Josh.....[Hon].....1850
*Morrison, David R.....1869
Morrison, John, M. A.....1872
Munro, James T.....1872
*Nelson, Horace.....1861
*Nelson, Wolfred.....[Hon].....1848
Nelson, Wolfred D. E.....1872
Nicol, William R.....1872
Nicoll, Charles Richard, Surg. Major, Grenadier Guards.....1862
Nesbitt, James A.....1868
O'Brien, Thomas B. P.....1862
O'Brien, Robert S.....1873
O'Brien, David.....1873
O'Callaghan, Cornelius H.....1854
*O'Carr, Peter.....1857
*O'Conner, Daniel A.....1861
O'Dea, James Joseph.....1859
Odell, Willian, Surgeon 19th Regiment of the Line.....1849
O'Leary, James.....1866
O'Leary, Patrick.....1859
Oliver, James W.....1867
O'Reilly, Charles.....1867
Osler, Wm.....1872
Padfield, Chas. Wm.....1868
Painchaud, Edward S. L.....1848
Palmer, Lorin L.....1867
Paquin Jean M.....1843
Paradis, Henry.....1048
Paradis, Pierre E.....1867
Parker Rufus S.....1867
Parker, Charles S.....1866
*Paterson, James.....1865
Paterson James.....1864
*Patee, George.....1858
Pallen, Montrose A.....1864
Patton, Edward K.....1867
Pegg, Austin J.....1872
Pegg, Charles H.....1867
Perreault, Victor.....1852
Perrier, John.....1868
Perrigo, James, M. A.....1870
Perry, Hezekiah R.....1873
Phelan, Cornelius J. R.....1865
*Phelan, Joseph P.....1854
Philip, David L.....1861
Picault, A. C. E.....1857
Pickup, John Walworth.....1860
*Pinet, Alexis.....1847
Pinet, Alex R.....1864
Poussette, Arthur Courthope.....1860
Powel, Israel Wood.....1860
Powell, Newton W.....1853
Powers, George W.....1861
Powers, Lafontaine B.....1864
Pringle, George.....1855
Proudfoot, John S.....1868
Proudfoot, Alex.....1869
Proulx, Philias.....1844
Provost, E. Gilbert.....1859
Quarry, James J.....1868
Quesnel, Jules M.....1849
Rae, John Hamilton, (Hon).....1853
Rainville, Pierre.....1863
Rambaut, John, Surgeon, Canadian Rifles.....1859
Rattray, Charles J.....1871
Raymond Oliver.....1850
Reed, Herbert H.....1861
Rednor, Horace P.....1864
Reddy, John.....(ad eun).....1856
Reed, Thomas D.....1871
Reid, Alex. Peter.....1858
Reid, John A.....1871
Reid, Kenneth.....1864
Reynolds, Robert T.....1836
*Reynolds, Thomas.....1842
Richard, Marcel.....1864
Richmond, Peter E.....1873
Ridley, Henry Thomas.....1852
*Riel, Etienne R. R.....1857
Rinfret, Ferdinand R.....1868
*Rintoul, David M.....1854

Richardson, John R.....1865
*Roberts, Edward T.....1859
Roberts, John E., B. A.....1867
Robertson, James.....1865
Robertson, David.....1864
Robertson, David T.....1857
Robertson, Patrick.....1867
Robillard, Adolphe.....1860
Robinson, Wesley.....1872
Robitaille, Louis.....1860
Robitaille, L. T.....1858
†Roddick, Thomas G.....1868
Rodger, Thomas A.....1869
Rooney, Robert F.....1870
†Ross, George M. A.....1866
Ross, Thomas.....1863
Ross, Henry.....1872
Ross, William G.....1871
Rugg, Henry C.....1865
Rumsey, William.....1859
Ruttan, Allan.....1852
*Sabourin, Moise.....1849
Sampson, Jas, (Hon).....1847
Sanderson, George W.....1850
Savage, Thomas Y.....1854
Savage, Alex. C.....1866
Sawyer, James E.....1863
Schmidt, Samuel B.....1847
Schofield, David T.....1869
Scott, Stephen A.....1854
Scott, William E.....1844
*Scriven, George Augustus.....1846
Seagar, Francis R.....1870
Seguin, Andre.....1848
Senkler, A. E.....1863
*Sewell, Stephen C.....(ad eun).....1843
Sewell, Colin.....(ad eun).....1869
Sharpe, Wm. James.....1872
Shaver, Peter Rolph.....1854
Shaver, R. N.....1857
Shepherd, Francis J.....1873
Shoebottom, Henry.....1857
*Simard, Amable.....1852
Simpson, Thomas.....1854
Smallwood, John R.....1868
Smith, Daniel D.....1868
*Smith, Edward W.....1859
Smith, Norman A.....1870
Smythe, T. W.....1848
Sparham, Eric B.....1852
Sparham Terence.....1841
*Squire, William Wood, M. A.....1864
Stanton, George.....1868
Stark, George A.....1872
*Staunton, Andrew Aylmer, Surgeon, Royal Artillery.....1845
Stephens, John A.....1873
Stevens, Alex. D.....1857
Stevenson, James McGregor.....1856
Stevenson, John A.....1873
*Stevenson, John L.....1855
Stevenson, Robert A.....1871
Stewart, Alexander.....1872
Stewart, John Alexander.....1862
Stewart, James.....1869
Stephenson, James.....1859
Stimpson, Alfred O.....1868
Shirk, George.....1865
Stowbridge, James Gordon.....1862
Sutherland, Fred. Dunbar.....1861
*Sutherland, William.....1836
Sutherland, William.....1870
Switzer, John E. K.....1865
Tabb, Silas E., M.A.....1869
Tait, Henry Thomas.....1860
Taylor, William H.....1860
Taylor, Sullivan A.....1870
Tew, Herbert S.....1864
Temple, James A.....1865
Thayer, Linus O.....1859
Theriault, F. D.....1863
Therien, Honore.....1863
*Thomson, James.....1842
Thompson, Robert.....1852
Tracy, Andrew W.....1873
Trenholme, Edward Henry.....1862
Trudel, Eugene.....1844
Turgeon, Louis G.....1860
Tuzo, Henry A.....1853
Ussher, Henry.....1861
Vannorman, Jonathan A.....1850
Vercoe, Henry L.....1865
Vicat, John R.....1867
Wagner, A Dixon.....1872
Wagner, William H.....1844
Wakeham, William.....1866
Walker, Robert.....1851
Walsh, Edmond C.....1866
Walton, George O.....1873
Wanless, John R.....1867
Ward, William T.....1873
Warren, Frank.....1872
*Warren Henry.....1860
Waugh, William S.....1872
Webb, James T. S.....1871
Weilbrenner, Remi Claude.....1851
Weir, Richard.....1852
Wherry John.....1862
Whitecomb, Josiah G.....1848
Whiteford, James W.....1873
Whitford, R.....1857
Whitewell, William P. O.....1860
Whyte, Joseph A.....1870
*Widmer, Christopher, (Hon).....1847
Wilcox, Marshall B.....1868
Wilson, Benjamin S.....1856
Wilson. Robert M.....1850
Wilson, William.....1857
*Wilscam, John Wilbrod.....1846
Wolverton, Algeron, B. A.....1867
Woods, David, Staff Surgeon.....1860
Wood, George C.....1849
Wood George.....1863
Wood, Hannibal W.....1865
Woodfull, Sam. Pratt. Asst-Surg. Royal Artillery.....1864

Workman, Benjamin.....1853
Workman, Joseph.....1835
Worthington, Edward..... [ad eun] 1868
Wright, Henry P.....1872
Wright, Stephen.....1859
Wright, William.....1848
Wye, John A.....1868
Young, Robert C.....1873
Youker, William.....1870

*Deceased.

†Holmes Medallist.

## MASTERS OF ARTS.

Bancroft, Rev. Charles..(ad eun)....1855
Bancroft, Rev. C., B.A....Junior.....1870
Baynes, Donald, B.A.....1867
Bethune, Meredith Blenkarne, B.A.1869
*Bothwell, John A., B.A.....1868
Bowman, Wm. M.....[Hon]...1859
Boyd, John, B.A.....1864
Browne, Dunbar, B.A., B. C. L.....1861
Butler, Rev. John..... .....(Hon)...1852
Carmichael, Rev. J., B.A..... .... 1871
Chamberlin, Brown, D.C.L. (ad eun).....1857
Chapman, Rev. Charles, M.A., London Univ., (ad eun.).....1872
Clarke, Wallace, B.A., M.D.....1872
Cornish, Rev. George B.A..... 1860
Cushing, Lemuel, B.A., B. C. L.....1867
Davidson, Rev. James, B.A.....1866
Davidson, Charles P., B.A., B. C. L.1867
Davidson, Leonidas H., B.A.....1867
DeWitt, Caleb S., B.A..... 1864
Dougall, John R., B.A .....1867
Duff, Archibald, B.A.....1867
Gibb, Georgo D., M. D.....(Hon.)...1856
Gibson, Thomas A.....(Hon)..1856
Gilman, Francis E., B.A.....1865
Gould, Edwin, B.A.....1860
Graham, John H.....(Hon). 1859
Green, Joseph, B.A.....1864
Hall, Rev. William, B,A .....1867
Hart, Lewis A., B.A.....1869
Hicks, Francis W., B.A.....1870
Hindley, John, B.A.....1873
Howe, Henry Aspinwall.....(Hon)..1855
Jones, Montgomery, B.A.....1873
Kahler, Frederick A., B.A.....1872
Kemp, Rev. Alexander F., (Hon)...1863
Kennedy, George T., B.A.....1872
Kennedy, Rev, John, B.A.. .....1860
Kirby, James, B.A., B. C. L.....1862
*Leach, Robert A., B.A., B. C. L...1860
McCord, David R., B.A., B. C. L.....1867
McGregor, James, B.A.....1868
McIntosh, John, B.A.....1873
McLaren, John R., B.A.....1868
Markgraf, Charles F. A .....(Hon)..1865
Mason, James L., B.A.....1863
Mattice, Corydon J., B.A..... ....1862
Morris, Alex., B.A., B. C. L.....1852
Morrison, Rev. James D., B.A.....1868
Morrison, John, B.A.....1870
Perkins, John A., B.A.....1862
Perrigo, James, B.A.....1869
*Plimsoll, Reginald J., B.A.....1862
Ramsay, Robert A., B.A., B. C. L..1867
Robins, Sampson Paul, B.A.....1868
Rodger, David..... .....(Hon.)...1857
Ross, George, B.A., M.D..... .....1866
Stewart, Rev, Colin Campbell, B.A..1870
Tabb, Silas Everett, B.A.....1869
Thorburn, John.....(Hon.)..1861
Trenholme, Norman W., B.A., B. C. L.....1867
Wicksteed, Richard G., B.A.,B.C.L.1866
Wilkie, Daniel.....(Hon.)..1866
Wilson, John, B.A.....1870
Wotherspoon, Ivan Tolkien, B.A....1869

*Deceased.

## BACHELORS OF CIVIL LAW.

*Abbott, Christopher C.....1850
Abbott, John J. C.....1854
Adams, Abel.....1867
Allan, Irvine.....1862
‡Archibald, John Sprott, B.A.....1870
Archambeault Joseph L. C.....1871
Armstrong, Louis.....1861
Ascher, Isidore G.....1863
Aylen, John, M.D.....1861
Aylen, Peter, B.A.....1854
*Badgley, Frank H.....1852
Bagg, Robert Stanley.....1871
Barnston, John G.....1856
Barry, Denis.....1872
Baynes, Edward Alfred.....1867
Benjamin, Lewis N.....1865
‡Bethune, Meredith B., M.A.....1869
Blanchard, Athanase.....1862
*‡Bothwell, John A.....1866
Bouthillier, Charles F.....1867
Boyd, John, B.A .....1864
Bowie, Duncan E.....1873
Browne, Dunbar, M.A.....1858
Bullock, William E., B.A.....1863
Butler, Thomas L..... .....1865
Calder, John.....1871
Carden, Henry.....1860
Caron, Adolph P.....1865

Carter, Christopher B.....1866
Carter, Edward.....1864
Chamberlin, Brown.....1850
Chamberlin, John, Junr.....1867
Charland, Alfred.....1863
Chauveau, Alexandre.....1867
Chauret, Amedee.....1873
Cocquet, Ambroise.....1865
Coutlee, Lewis W. P.....1873
Conroy, Robert Hughes.....1869
Cowan, Robert C.....1862
Cruikshank, William.....1872
Curran, Joseph C.....1862
Cushing, Charles.....1869
Cushing, Lemuel, Junr, M. A.....1865
Daly J. G.....1858
Dansereau, Arthur.....1865
Darby, Daniel.....1870
Darey, Pierre J., M.A.....1868
David, Alphonse.....1872
Davidson, Charles P., M.A.....1863
Davidson, Leonidas Heber, M..A...1863
Day, Edmund T.....1864
Desaulniers, Henri Lesieur.....1864
Des Rosieres, Joseph.....1873
Desrochers, Jean L. B.....1861
Doak, George O.....1863
Doherty, Thos. J.....1868
Dorion, Adelard A. P.....1862
Doutre, Pierre.....1858
Doutre, Gonzalve.....1861
Driscoll, Netterville H.....1861
Drummond, William D.....1867
Dubuc, Joseph.....1869
Duchesnay, Henri J. T.....1866
Dunlop, John.....1860
Duprat, Pierre N.....1866
Durand, Naphtalle.....1864
Farmer, William O.....1866
Fisher, Roswell C.....1869
Fisk, John J.....1868
Foran, Thos. P.....1870
Franks, Albert W.....1871
Gairdiner, William F.....1856
Galarneau, Joseph Antoine.....1864
Gauthier, Zephirin.....1859
Geoffrion, Christopher A.....1866
Gibb, James R.....1868
Gilman, Francis E., M. A.....1865
Girouard, Desire.....1860
‡Gordon, Asa.....1867
Grenier, Amedé L. W.....1863
Hall, William A.....1863
Harnet, Wm. de Courcy.....1870
Hart, Lewis A., M. A.....1869
Hemming, Edward J.....1855
Holton, Edward.....1865
Houghton, John G. K.....1863
Howard, Rice M.....1869
Howliston, Alexander.....1865
‡Hutchinson, Matthew.....1873
Jodoin, Isaie.....1858
Johnston, Edwin R.....1866
Jones, Richard A. A.....1854
Joseph, Joseph O.....1864
Keller, Francis J.....1869
Kelley, John P.....1862
Kemp, Edson, B. A.....1860
Kenny, William R.....1865
Kirby, James, M. A.....1862
Kitson, George R. W.....1867
Lacoste, Arthur.....1869
Laflamme, R. G.....1856
Laflamme, Leopold.....1869
Lafrenayne, P. R.....1856
Lambe, William B.....1850
Lanctot, Mederic.....1860
Larose, Telesphore.....1860
Laurier, Wilfred.....1864
Lay, Warren Amos.....1867
Lawlor, Richard S.....1865
Leach, David S.....1861
*Leach, Robert A., M. A.....1860
LeBeauf, Louis C.....1873
Lefebvre, Frederick.....1863
Lonergan, James.....1873
Lonergan, Michael L. S.....1871
Loranger, Louis George.....1869
Lyman, Elisha Stiles.....1865
Lyman, Frederick S., B. A.....1869
‡Lynch, Wm. W.....1868
Mackenzie, Frederick.....1861
Major, Edward James.....1871
‡Marler, William DeM., B.A.....1872
McCord, David Ross, M. A.....1867
McCormack, David.....1872
McDonald, Frank H.....1873
*McGee, Thomas D'Arcy.....1861
McIntosh, John, B. A.....1868
McLaren, John J.....1868
McLaren, John Robert, M. A.....1860
McLaurin, John Rice.....1867
‡McMaster, Donald.....1871
Merry, John Wesley.....1870
Messier, Joseph S.....1868
Mitchell, Albert Edward.....1867
Molson, Alexander.....1851
Monk, Ed. Cornwallis.....1870
Morris, Alexander, M. A.....1850
Morris, John L.....1860
Nagle, Sarsfield B.....1862
Nutting, Charles A.....1872
Ouimet, Adolphe P.....1861
Papineau, Joseph G.....1869
Piche, Aristide.....1868
Perry, Joseph.....1869
Pariseault, Chas. Ambroise.....1859
Perkins, John A., M. A.....1860
*Plimsoll, Reginald J., M. A.....1861
Power, Alexander W. A.....1868
Prefontaine, Raymond.....1873
Rainville, Henri Benjamin.....1873
Ramsay, Robert A., M.A.....1866
Richard, Damase F. S.....1859
Richard, Emery Edward.....1867
Richard, Edward E.....1868

Rixford, Emmet Hawkins.....1865
Robideaux, Emery.....1866
Rochon, Charles A.....1861
Rose, William.....1866
Sabourin, Ernest.....1863
Santoire, Camille.....1873
Sarrasin, Ferdinand Leon.....1871
Sexton, James Ponsonby.....1860
Short, Robert.....1867
Sicotte, Victor B.....1862
Snowdon, H. L.....1856
Stephens, George W.....1863
Stephens, Romeo H.....1850
Stephens, Chas. O.....1864
Tait, Melbourne.....1862
Taschereau, Arthur.....1864
Taylor, Reid.....1869
Terril, Joseph Lee.....1865
Torrance, Fred. W., M.A.....1856
Trenholme, Edward H., M.D.....1865
‡Trenholme, Norman W., M.A.....1865
Vandall, Phillipe.....1865
Vibon, Chas. A.....1863
Walsh, Thomas Joseph.....1863
Watts, William J., B.A.....1869
Welch, Alfred.....1864
Wicksteed, Richard G., M. A.....1864
Wight, James H.....1868
Wood, Franc Ogilvie.....1870
Wotherspoon, Ivan T., (Laval), [ad eun].....1869
Wright, William Mackay, B.A.....1863
Wurtele, Charles J. C.....1863
Wurtele, Jonathan S. C.....1870

* Deceased.

‡ Elizabeth Torrance Medallist.

## BACHELORS OF ARTS.

Allan, James G. [S e l].....1873
Allworth, John.....1872
Anderson, Jacob deWit, [C e l].....1866
Archibald, John Sprott. [W p l].....1867
Aylen, Peter.....1850
Bancroft, Rev. Chas., Junior.....1866
Barnston, Alexander [C].....1857
Baynes, Donald.....1864
Beckett, William Henry.....1866
Bethune, Meredith Blenkarne [L n l].....1866
Blackader, Alex. D. [n l].....1870
Bockus, Charles E.,.....1852
*Bothwell, John A., (L p l).....1864
Boyd, John, (n).....1861
Brewster, William, (C e l).....1865
Brooks, Charles H., (L n l).....1868
Browne, Arthur Adderly, (s e l).....1866
Browne, Dunbar.....1856
Browne, Thomas.....1853
Bullock, William E. (C e l).....1860
Cameron, James (M m l).....1871
Carmichael, James.....1867
Cassels, Hamilton, (Morrin).....1873
Cassels, Robert, (Morrin) (p l).....1866
Chipman, Clarence.....1866
Christie, John H.....1872
Clarke, Wallace (S e l).....1869
Cline, John D. (C e l).....1871
Cook, Archibald H. (Morrin).....1869
Clowe, John D.....1863
Cornish, Rev. Geo., B. A., *London Univ.* (ad eun.).....1856
Crothers, W. J. (p).....1872
Coussirat, Rev. Adrian D. (ad eun)1871
Cushing, Lemuel, (e l).....1863
Dart, William, J.....1868
Davidson, Charles Peers.....1863
Davidson, Rev. Jas. (ad eun.).....1863
Davidson, Leonidas Heber.....1863
Dey, William, J. (L n l).....1871
DeWit, Caleb S.....1861
Dougall, Duncan.....1860
Dougall, John Redpath.....1860
Drummond, Chas. G. B. (n l).....1862
Duff, Archibald (M m l).....1864
Duncan, Alexander.....1867
Ells, Robert, (L n l).....1872
Fairbairn, Thomas (p).....1863
Ferguson, John S.....1861
*Ferrier, Robert W.....1857
Fessenden, Elisha Joseph.....1863
Fleet, Charles J. (e l).....1873
Fortin, Rev. Octave (ad eun).....1867
Fowler, William (n l).....1865
Fowler, Elbert.....1865
Fraser, John (Morrin).....1869
Gibb, Charles.....1865
Gilman, Francis Edward.....1862
Gore, Frederick.....1861
Gould, Edwin.....1856
Grandy, John.....1866
Greenshields, Edward (W p l).....1869
Green, Joseph (C e l).....1861
Green, Lonsdale.....1864
Hall, William.....1861
Hart, Lewis A.....1866
Harrington, Bernard I. [L n l].....1869
Hicks, Francis W.....1864
Hindley, John.....1868
Hodge, D. W. K., [S e l].....1872
Holiday, Caleb S.....1870
Jones, Montgomery (e l).....1869
Johnston, James A. [W p l].....1870
Joseph, Montefiore [n l].....1870
Kähler, Frederick A. [C e l].....1869
Kelly, Frederick W. [S e l].....1871
Kemp, Edson.....1859
Kennedy, George T. [n l].....1868
*Kershaw, Philip G.....1867

Kirby, James [C].....1859
Krans, Edward H. [S e 1].....1865
Laing, Robert [W p 1].....1868
*Leach, Robert A.....1857
Lewis, Albert R. [e 1].....1869
Lyman, Frederick Stiles.....1863
Major, George W.....1870
Marler, Wm., De M. [M m 1].....1868
Mason, James L.....1859
Mattice, Corydon J.....1859
Maxwell, John, [n 1].....1872
McCord, David Ross.....1863
MacDonnell Richard L [C e 1].....1873
MacDuff, Alexander Ramsay.....1866
McGregor, James [e 1].....1864
McGregor, Duncan.....1871
McIntosh, John [S e 1].....1870
McKenzie, John [Morrin].....1867
McKenzie, Robt., [p 1].....1869
McLaren, John R.....1856
McLaren, Harry [C].....1858
McLean, Neil W. [Morrin].....1866
McLennan, Duncan H.....1871
McLeod, Duncan C. [M m 1].....1873
McLeod, Hugh.....1866
McLeod, Finlay C.....1872
McOuat, Walter [n 1].....1865
Merritt, David Prescott.....1863
Moore, Francis X.....1868
Morris, William.....1859
Morris, Alexander.....1849
Morrison, John.....1866
Morrison, James D. [L n 1].....1865
Morison, David E. [e 1].....1870
Muir, John N.....1864
*Muir, Rev. E. P. (ad eun).....1865
Munro Gustavus.....1871
Munro, Murdoch.....1872
Murray, Charles H. [L n 1].....1873
Naylor, W. H., [w p 1].....1872
Oliver, Theophilus H. (Morrin) [p]1866
Pease, George H. [W e 1].....1864
Perrigo, James [n 1].....1866
Perkins, John A.....1858
Petit, Rev. Charles B.....1850
Phillips, Charles W.....1852
*Plimsoll, Reginald J.....1858
Ramsay, Robt. Anstruther [Wu 1]1862
Redpath, Geo. D.....1857
Reddy, Herbert L. [e 1].....1873
Ritchie, Arthur F. [e 1].....1873
Robertson, Alex. [L n 1].....1870
Robins, Sampson Paul [W m 1]...1863
Ross, George [C e 1].....1862
Russell, Henry (Morrin).....1869
Scott, Henry C. (Morrin) [p 1].....1866
Sherrill, Alvan F. [C n 1].....1864
Slack, George.....1868
Stethem, George T.....1852
Stewart, Colin Campbell [L n 1]...1867
Tabb Silas Everett [n 1].....1866
Thornton, Rev. R., M. A. (ad eun).1871
Torrance Edward F. [p].....1871
Torrance, John Fraser.....1872
Trenholme, Norman Wm. [C p 1]..1863
Tunstall, Simon J. [e 1].....1873
Tupper, James S. [n 1].....1871
Walker, Thomas.....1860
Wallace, Robert W., [p 1].....1872
Watts, Wm. John [e 1].....1866
Whillans, Robert.....1872
Wicksteed, Richard G. [e 1].....1863
Wilson, John [e 1].....1866
Wood, Franc O.....1869
Wood, Thomas F.....1869
Wotherspoon, Ivan T. (Morrin) [p 1].....1866
Wright, William McKay.....1861

## BACHELORS OF APPLIED SCIENCE,

### *In Civil & Mechanical Engineering.*

Stewart, Donald A.....1873
Wicksteed, Henry K.....1873
McLeod, Clement H.....1873
Brodie, Robert J.....1873
Kennedy, George T., M.A.....1873

### *In Mining and Assaying.*

Torrance, John Fraser [n 1.....1873

## GRADUATES IN CIVIL ENGINEERING.

Ross, Arthur.....1860
Savage, Joseph.....1860
Walker, Thomas B.A.....1860
Barnston, Alexander B.A.....1859
Bell, Robert [n 1].....1861
Gould, Jas. H.....1872
Kirby, Charles H.....1860
McLennan, Christopher.....1859
Reid, John Lestock.....1863
Rixford, Julian Pickering.....1864
Crawford, Robert.....1859
Deupe, Joseph .....1861
Edwards, George.....1863
Frost, George H.....1860
Gaviller, Maurice.....1863
Gooding, Oliver.....1858

[C] Chapman Medallist.
[W] Prince of Wales Medallist.
[M] Anne Molson Medallist.
[S] Shakespeare Medallist.
[L] Logan Medallist.
[p 1] First Rank Honours in Mental and Moral Philosophy. [p] Second Rank,
[m 1] " " " in Mathematics. [m] Second Rank.
[c 1] " " " in Classics. [c] Second Rank.
[n 1] " " " in Natural Science. [n] Second Rank.
[e 1] " " " in English Literature. [e] Second Rank.
*Deceased.

# McGill Normal School.

1873-74.

## Government of the School.

Under the Regulations for the establishment of Normal Schools in the Province of Quebec, the Minister of Public Instruction is empowered to associate with himself for the direction of one of these Schools the Corporation of McGill University, Montreal. In accordance with this arrangement the Provincial Protestant Normal School is affiliated with the McGill University, and the following members of the Corporation of the University constitute the Committee of the Normal School for the session of 1872-3.

## NORMAL SCHOOL COMMITTEE.

J. W. Dawson, LL.D., F. R. S., Vice Chancellor of the University—*Chairman.*

David Torrance, Esq.
George Moffat, M. A. } Governors of McGill College.

Rev. George Cornish, LL.D.
Robert A. Ramsay, M.A., B. C. L. } Fellows of McGill University

William Craig Baynes, B. A., *Secretary.*

## OFFICERS OF INSTRUCTION.

William Henry Hicks, Esq.—*Principal, and Ordinary Professor of English Language and Literature.*

James McGregor, M. A.—*Ordinary Professor of Mathematics, and Instructor in Classics.*

Sampson Paul Robins, M. A—*Associate Professor of Natural History and Agriculture.*

Pierre J. Darey, M. A., B.C.L.—*Associate Professor of French.*

Mr. James Duncan.—*Instructor in Drawing.*

Mr. R. J Fowler.— " *in Music.*

Mr. John. Andrew.— " *in Elocution.*

J. Baker Edwards, Ph. D.—*Lecturer on Chemistry and Natural Philosophy.*

This institution is intended to give a thorough training to teachers, especially for the Protestant population of Lower Canada. This end is attained by instruction and training in the Normal School itself, and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to Students from all parts of the Province.

The Seventeenth Session of the school will commence on the first of September, 1873, and will terminate on the first of July, 1874.

The complete course of Study extends over three years, and the Students are graded as follows:—

1. *Elementary School Class.*—Studying for the Elementary School Diploma.

2. *Model School Class.*—Studying for the Model School Diploma.

3. *Academy Class.*—Studying for the Academy Diploma.

### 1. *Conditions of Admission and obtaining Diplomas.*

Candidates for admission into the Elementary School Class, will be required to pass an examination in Reading, Writing, the Elements of Grammar, Arithmetic and Geography; and to produce the certificate and sign the application referred to in Articles 1 and 2 of the Regulations. Admission into each of the higher classes requires a knowledge of the subjects of the previous one.

Each Student must produce a certificate of good moral character from the clergyman or minister of religion under whose charge he has last been, and also testimony that he has attained the age of sixteen years. He will also be required to sign a pledge that he purposes to teach for three years in some public school in Lower Canada.

There will be a Semi-sessional Examination at Christmas, which all Students are required to pass, in order to continue in the classes.

At the close of the first year of study, students may apply for examination for diplomas giving the right to teach in Elementary Schools; and after two years' study, or if found qualified at the close of the first year, they will, on examination, be entitled to diplomas as teachers of Model Schools.

Students having passed the examination in the Model School Class, or having advanced to the requisite knowledge, may go on to the Academy Class, and, on examination, may obtain the Academy Diploma.

## 2. *Privileges of Students.*

On complying with the above conditions, all students will be recognized as *Teachers in Training;* and as such will be entitled to free tuition with the use of text books, and to bursaries in aid of their board, not exceeding $36.00 per annum in the case of those in the two first Classes, or $80.00 in the case of those in the Academy Class, should they be successful in obtaining the diploma at the final examination. A portion of this allowance will be advanced to such students as are not resident in Montreal, on their passing the semi-sessional examination at Christmas.

Under the regulations subjoined, and with the view of extending the benefits of the school to all parts of the country, those who reside at a distance of more than ninety miles from the city of Montreal, will also be entitled to a small allowance for travelling expenses proportionate to the distance.

Students resident in Montreal may share in the bursary fund, on producing certificates from their ministers or clergymen that such aid is absolutely necessary to their continuing in attendance at the school.

In addition to religious instruction of a general Protestant character by the Professors, arrangements will be made for special religious instruction by ministers representing the several denominations with which the students may be connected.

No boarding-house is attached to the institution, but every care will be taken to insure the comfort and good conduct of the students, in private boarding-houses approved by the Principal. Board can be obtained at from $9 to $12 per month.

*The Prince of Wales Medal and Prize* will be given to the Student taking the highest place in the Model School Class, provided that such Student shall attain to the standard fixed by the Regulations of the Council of Public Instruction for this Medal.

*The J. C. Wilson Prize* of $40 and a Book, contributed by him as a former Student of the School, will be offered for competition to the candidates for the Elementary Diploma, and will be given for the highest aggregate number of marks.

All the preceding regulations and privileges apply to female as well as to male students.

Persons holding the degree of B. A. or M. A. of any University in the Province of Quebec, may receive the Academy Diploma, on passing an examination in the art of teaching, and in such other subjects necessary to the Academy Diploma, as may not have been included in their University examination.

### 3. *Course of Study.*

## 1. ELEMENTARY SCHOOL CLASS STUDYING FOR THE ELEMENTARY SCHOOL DIPLOMA.

With the view of accommodating those who may be unable to enter at the commencement of the Session, or whose previous education may enable them to enter at a more advanced period, the course of study in this class is divided into terms, as follows.

FIRST TERM, from September 1st to December 26.

(*Entrance examination as stated above*).

*English.*—Grammar and Composition so far as to parse syntactically and write correctly a few short descriptive sentences. Text-Books, Bullion's Grammar and Parker's Progressive Lessons; Reading and Spelling, Etymology, Penmanship, Elocution.

*Geography.*—So far as to have a good acquaintance with the Map of the World.

*History.*—Outline of Sacred and Ancient History.—History of Canada, Text-Books, White and Hodgins.

*Art of Teaching.*—School Organization, Classification, Registration, Method, &c.

*Arithmetic.*—Simple and Compound rules, Vulgar and Decimal Fractions, and Practice, with explanation and demonstration of rules. Text-Book, Sangster's Arithmetic.

*Algebra.*—The Elementary rules, as in the Algebra of Chambers' Educational course.

*Geometry.*—First Book of Euclid.

*Physics.*—The Chief Forces of Nature, Properties and states of Bodies, Solids, Liquids and Gases.

*French.*—Elements of Grammar, easy reading and translation. Text-Books, Student's Companion to the study of French. DeFivas' Elementary Reader.

*Natural History.*—Botany as in Gray's Text-Book.

*Drawing.*—Elements and simple outlines.

*Music.*—Elements of Vocal Music.

SECOND TERM.—January 1st to April 1st.

(*Pupils at entering the commencement of this term, will be expected to pass a satisfactory examination in the subjects of the previous term*).

*English.*—Grammar and Composition, as far as to be able to analyse simple and complex sentences, and to write correctly a short essay on a familiar subject.—Elocution continued.

*Geography.*—So far as a good acquaintance with the physical features and political divisions of the great continents.

*History.*—England and France. Ancient-History.

*Arithmetic.*—Proportion, Per-centage, Exchange.

*Algebra.*—Simple Equations of one, two and three unknown quantities.

*Geometry.*—Second and third Books of Euclid.

*Physics.*—*Motion.*—Vibration, Heat and Light.

*French.*—Grammar continued; including Reading, Translation, Oral and Written Exercises.

*Natural History.*—Continued.

*Drawing.*—Landscape, etc., in pencil.

*Music.*—Elements of Vocal Music, and Part Songs.

THIRD TERM.—April 1st to July 1st.

(*Pupils entering at the commencement of this term, will be expected to pass a satisfactory examination in the subjects of the two previous terms.*)

*English.*—Advanced Lessons, Grammar and Composition.—Elocution continued.

*Geography and History.*—Advanced Lessons with use of Globes and recapitulation of previous parts of the course.

*Art of Teaching.*—Continued.

*Arithmetic.*—Conclusion of Commercial Arithmetic and general Recapitulation.

*Book-keeping.*—by Single Entry.

*Algebra.*—Quadratic Equations and Recapitulation.

*Geometry.*—Recapitulation and Deductions.

*Elementary Chemistry.*—Elements and Constituents of Soils.

*French, Natural History, Drawing and music.* Continued as in the previous term

*Religious instruction* will be given throughout the Session.

## 2. MODEL SCHOOL CLASS, STUDYING FOR THE MODEL SCHOOL DIPLOMA.

*Students entering this Class, must have passed a satisfactory examination in the subjects of the Elementary School Class. The Class will pursue its studies throughout the Session, without any definite division into terms.*

*English.*—Principles of Grammar and Composition, Style. History of the English Language. Lectures on English Literature. Elocution.

*Geography.*—Mathematical, with Nautical Problems, Detailed course of Political and Physical Geography.

*History.*—Mediæval and Modern, with especial reference to the History of Literature, Science and Art, and Colonization and Commerce.

*Education.*—Advanced course of Lectures on Educational Subjects.

*Mathematics..*—Logarithmic, Algebraic, and Geometric Arithmetic, Recapitulation of Commercial Arithmetic. Quadratic Equations continued. Ratios and Progression. Theorem of Undetermined Co-efficients. Binomial and Exponential Theorems. 5th. and 6th books of Euclid.

*Chemistry and Natural Philosophy.*—Affinity, Laws of Combination, Principal groups of Salts. Electricity and Electrolysis. Mechanical Physics.

*Classics.*—Elements of the Latin Language, as in Bryce's 1st Latin Reader.

*French.*—Student's Companion. Translation from French into English, and from English into French. DeFivas' Reading book continued, Racine.

*Natural History.*—Zoology as in Dawson's Hand Book.

*Agricultural Chemistry.*—Principles, and applications to Canadian Agriculture.

*Drawing.*—Figures from the Flat and from Models. Elements of Perspective.

*Music.*—Instrumental Music, and Part Songs, in Vocal Music.

*Religious Instruction* throughout the Session.

## 3. ACADEMY CLASS STUDYING FOR THE ACADEMY DIPLOMA.

(*Students entering this Class must have passed a satisfactory examination in the subjects of the Model School Class*).

*English Literature.*—An advanced course.

*History and Geography.*

*Logic and Ethics.*—As in Abercrombie's Intellectual and Moral Philosophy.

*Mathematics.*—Trigonometry, Solid Geometry, Theory of Equations, Mechanics and Astronomy. Galbraith and Haughton.

*Latin.*—Sallust, Catiline; Virgil Æneid, Book IV; Latin Prose Composition, Roman History.

*Greek.*—New Testament, John's Gospel; Xenophon, Anabasis B I; Grammar and History.

*Botany.*—As in Gray's Text-book.

*French.*—Conversation in French. French Literature. Poitevin's French Grammar, Racine and Moliere.

*Elocution.*

*Drawing.*

### EXTRACTS FROM THE REGULATIONS.

*Special Regulations for admission of teachers in training.*

Article First.—Any person desirous of being admitted as a teacher in training must apply to the Principal of the Normal School, who, on his producing an extract from the Register of Baptisms, or other evidence, showing that he is fully sixteen years of age, with the certificate of character and conduct required by the 16th article of the General Rules and Regulations, approved by His Excellency the Governor General in Council, on the 22nd December, 1856, shall examine the candidate.

If upon his examination it is found that the candidate can read and write sufficiently well, knows the rudiments of Grammar in his mother tongue, Arithmetic as far as the rule of three inclusively, and has some knowledge of Geography, the Principal shall grant him a certificate.

Article Second.—The candidate having thus obtained the certificate of the Principal, shall then, (in the presence of two witnesses, who, with the Principal, shall countersign the same,) sign an applicatian in writing for admission, containing the declaration required by the 23rd general regulation. This shall be forwarded to the Superin-

tendent of Education, together with all the certificates and other documents required, and if the whole be found correct, the Superintendent shall cause the name of the candidate to be inscribed in the Register, and notice thereof shall be given to the Principal.

Article Third.—The teachers in training shall state the place of their residence; and those who cannot reside with their parents, will be permitted to live in boarding-houses, but in such only as shall be specially approved of. No boarding-houses having permission to board male teachers in training will be permitted to receive female teachers in training as boarders. and *vice versa*.

Article Fourth.—Every teacher in training on passing the examination, will be allowed a sum not exceeding £9 to assist in paying his board.*

Article Fifth.—Every teacher in training residing at a distance of more than ninety miles from the City of Montreal, shall be entitled to receive an allowance for travelling expenses, proportionate to the distance, but not to exceed two pounds ten shillings *per annum*.

Article Sixth.—The total amount of allowances paid to teachers in training under the foregoing articles shall not exceed £333. 6s. 8d. currency, yearly—that being the sum granted for this object; and when the whole of this amount is appropriated, such teachers in training as may apply for admission shall not be entitled to any portion thereof until vacancies shall occur.

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*Special Regulations for Government and Discipline.*

Article First.—Teachers in training guilty of drunkenness, of frequenting taverns, of entering disorderly houses or gambling houses, or keeping company with disorderly persons, or committing any act of immorality or insubordination, shall be expelled.

Article Second.—There shall be no intercourse between the male and female teachers in training while in the School, or when going to, or returning from it. Teachers of one sex are strictly prohibited from visiting those of the other.

Article Third.—They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.

Article Fourth.—They will be allowed to attend such lectures and public meetings only as may be considered by the Principal, conducive to their moral and mental improvement.

Article Fifth.—Proprietors of boarding-houses authorized by the Principal shall report to him any infraction of the rules, with which they have become acquainted.

Article Sixth.—The Professors shall have the power of excluding from the lectures for a time, any student who may be inattentive to his studies, or guilty of any minor infractions of the regulations.

Article Seventh.—Teachers in training will be required to state with what religious denomination they are connected; and a list of the Students connected with each denomination shall be furnished to one of the Ministers of such denomination resident in Montreal with a request that he will meet weekly with that portion of the teachers in training, or otherwise provide for their religious instruction.

Every Thursday afternoon after four o'clock will be assigned for this purpose.

*Except in the case of Teachers in training for the Academy Diploma, who may receive a sum not exceeding £20.

Article Eight.—In addition to punctual attendance at the weekly religious instruction, each student will be required to attend public worship at his own church, at least every Sunday.

Intending students may obtain all necessary information on application to the Principal or either of the Professors.

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## MODEL SCHOOL OF McGILL NORMAL SCHOOL.

Head Teacher of Boys' School—Francis W. Hicks, M.A.
" " Girls' School—Amy F. Murray.

These Schools can accommodate about 300 pupils, are supplied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of six and upwards, and give a thorough English Education. Fee: Boys' and Girls' Model Schools, 1s. 3d. to 2s. per week; Primary School, 9d.; payable weekly.

# Time Table of McGill Normal School.

## SESSION 1873-4.

### ELEMENTARY SCHOOL CLASS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 9<br>10<br>11 | Model School. | Arithmetic,<br>Algebra & Geometry,<br>Art of Teaching. | Model School. | Arithmetic,<br>Algebra,<br>Geometry. | Model School. | Drawing,<br>Elocution,<br>Singing. |
| 1<br>2<br>3<br>4 | Geography,<br>History,<br>Composition,<br>French. | Model School.<br><br>3½ Elocution,<br>Phys. & Elemen. Chem'y | Geography,<br>English Literature,<br>French,<br>Geology, | Model School,<br>3½ Elocution,<br>Religious Instruction. | Grammar,<br>History,<br>Wrising,<br>French. | |

### MODEL SCHOOL CLASS.

| | | | | | | |
|---|---|---|---|---|---|---|
| 9<br>10<br>11 | Arithmetic,<br>Latin. | Model School. | Algebra,<br>Latin. | Model School. | Geometry,<br>Arithmetic & Algebra. | Elocution,<br>Drawing,<br>Singing. |
| 1<br>2<br>3<br>4 | Model School,<br>3¼ Agriculture. | Geography,<br>History.<br>Grammar. | French,<br>Eng. Literature. | Education,<br>Composition,<br>Chemistry,<br>Religious Instruction. | Model School,<br>French,<br>Zoology. | |

### ACADEMY CLASS.

| | | | | | | |
|---|---|---|---|---|---|---|
| 9<br>10<br>11 | Mathematics. | Model School.<br>Moral Philosophy.<br>Latin. | Mathematics. | Model School. | Mathematics. | Elocution,<br>Drawing,<br>Singing. |
| 1<br>2<br>3<br>4 | Greek,<br><br>French. | Geography.<br>History. | Model School,<br>Eng. Literature<br>French. | Greek.<br>Composition.<br>Moral Philosophy,<br>Religious Instruction. | Latin,<br>Model School.<br><br>Zoology. | |

# Examination Papers

OF THE

## McGILL UNIVERSITY,

## MONTREAL.

SESSION OF 1872-73.

**Montreal:**

PRINTED BY JOHN LOVELL, ST. NICHOLAS STREET.

1873.

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# ORDER OF EXAMINATION PAPERS.

# McGILL COLLEGE, MONTREAL.

## FIRST YEAR EXHIBITIONS, 1872.

### GREEK.

MONDAY, SEPTEMBER 16TH :—MORNING, 9 TO 12.

*Examiner*, .....REV. GEORGE CORNISH, LL D.

1. Translate :—Homer, Iliad, I., vss. (*a*) 43–52. (*b*) 331–344.

2. In ext. (*a*) construe :—*τοῦ, κῆρ, ὄμοισιν, αὐτοῦ κινηθέντος, νεῶν, αὐτοῖσι.*

3. Parse the following words :—*αἰδομένω, ἔγνω, ἠσιν, φρεσί, ἄσσον, ὅς, ἔκηα, βῆ, ἔηκεν, εἵκτην, μείζους, ἀπόφηναι.*

4. Write down some of the principal words that take the Digamma in the poems of Homer. How is that character represented in Latin and English? Give instances. On what ground has its use originally in the Homeric poems been inferred?

5. (*a*) Define the terms *Hiatus, Arsis, Thesis.* State the rule for the effect of the last two on the quantity of vowels. (*b*) Write down the proper designation and the scheme of the metre of the Iliad. (*c*) Scan the first six verses of extract (*b*) and point out any metrical peculiarities.

6. Translate :—Xenophon, Anabasis, I., Chap. vii., §§ 5–9.

7. Write a short account of the expedition of the Ten Thousand, giving dates, and point out its important consequences to Persia.

8. How do you account for the Genitive in the expression *ἰέναι τοῦ πρόσω*? Explain the syntax of the following expressions :—*ἦσαν δὲ ταῦτα δύο τείχη. Κέρσος ὄνομα. εὖρος πλέθρον.*

9. Translate :—Lucian, Charon et Vita, § 6.

10. State what you know about Lucian and his writings.

11. (*a*) Explain the uses of the Genitive, severally, in the following expressions :—(1) *εἰς τοῦτο ἀνοίας.* (2) *νόμισμα ἀργύρου.* (3) *τὰ τῆς πόλεως.* (4) *φόβος τῶν πολεμίων.* (5) *θεῶν εὐχαί.* (6) *ὁδὸς τριῶν ἡμερῶν.* (*b*) Distinguish between :—*παρὰ νηῶν, παρὰ νησί,* and *παρὰ νῆας. ἐπὶ Κύρου, ἐπὶ Κύρῳ,* and *ἐπὶ Κῦρον. ὁ ἀγαθὸς ἀνὴρ* and *ἀγαθὸς ὁ ἀνήρ. πάντα δέκα* and *τὰ πάντα δέκα.* (*c*) Decline :—*ταμίας, λευκώς, θρίξ, ἡδύς, ὅστις.*

12. Translate into Greek :—(1) He admires and praises the good man. (2) The men of the city said this. (3) Cyrus sent for the ships that he might land the heavy armed troops. (4) Both the father and his daughter are good. (5) The Persians were fighting a great battle, but they were conquered by the Greeks.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### GREEK.

MONDAY, SEPTEMBER 16TH :—MORNING, 9 TO 12.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. Translate :—Homer, Odyssey, IX., vss. 231–251.

2. (*a*) Write a sketch of the life of Homer as handed down to us by the ancients. (*b*) Give an account of the preservation of the Homeric poems and of their transmission from ancient to modern times. (*c*) State the theory of Wolf and his school touching the authorship and composition of the poems.

3. Translate :—Homer, Iliad, VI., vss. 12–19 and 318–331.

4. In the above extracts, explain the construction of :—vs. 12—*βοήν*. 14—*βιότοιο*. 16—*οἱ*. 319—*δουρός*. 326—*καλά*. 331—*πυρὸς δηίοιο*. Od. IX., 29—*θεάων*.

5. Parse the following verbs :—*ἔπραθον, ἐξέφθιτο, ἔβην, δέδμητο, π. φιδοιμην, πεπαλάχθαι, ἥσατο, ἑκέκαστο, καταξέμεν, οὐτα*.

6. Distinguish between :— *κράτος — κρατός. δημῷ — δήμῳ. ἦ—ἦ—ἦ. τὸν οὐδὸν—τὴν οὐδόν. ἤδη—ἤδη. ἄνα—ἀνά. πολέων—πόλεων*.

7. Translate :—Xenophon, Hellenics, I. (*a*) Chap. i., §§ 10–13. (*b*) Chap. vi., §§ 23–25.

8. (*a*) *Ὀλυμπιὰς τρίτη καὶ ἐνενηκοστή* :—Give the above date B. C. and A. U. C. (*b*) Give the value of the *ὀβολός, δραχμή, μνᾶ*, and *ταλαντον*, severally. (*c*) Where were Thurii, Gytheum, Methymna, Mitylene, Eïon, Byzantium, respectively ?

9. Translate :—Arrian, III., § 7 (6 and 7).

10. When did Arrian live and write ? Whom did he take as his literary model ? Is his history trustworthy ?

11. (*a*) Write down the original personal endings of the *Indicative Active*, in the *Principal* and *Historical* Tenses. (*b*) Name the Tenses used to express action as *continued, completed*, or *indefinite*. (*c*) Define the general use of the modes, severally.

12. Translate into Greek :—(1) The general said that the soldiers ought to fight bravely. (2) He said that if the king would trust him, he would obey him in all things. (3) They arrived just three days too late for the battle and then sailed down the river. (4) Under the leadership of Pericles the Athenians accomplished many noble works.

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### GREEK.

MONDAY, SEPTEMBER 16TH:—MORNING, 9 TO 12.

*Examiner*, ..... REV. GEORGE CORNISH, LL.D.

1. Translate:—Euripides, Medea, vss. (*a*) 94–110. (*b*) 1361–1377.

2. (*a*) State the different interpretations that have been given of vss. 106–7. (*b*) Write down the name and scheme of the metre used in ext. (*a*) and scan the first six verses. (*c*) Give the exact force of the tenses in the following:—vs. 9 —*πείσασα—κατῴκει.* 33 — *ἀτιμάσας—ἔχει.* 78 —*ἀπωλόμεσθ' ἄρα.* 223—*οὐδ' ἥνεσα.*

3. Translate:—Herodotus, VIII., chapp. liv.—lv.

4. Give an account of the dialect used by Herodotus, and turn the following words into the Common Dialect:—*ὦν, ποιέει, ἑωυτοῦ, ἀπίκατο, ὅτεῳ, ἀληθέα, πλώοντες, τρηχέως, θύρῃσι, νῆας, πείθεο, πλεῦνες.*

5. Translate:—Xenophon, Hellenics, I., chap. vi., §§ 31–33. *ἐπὶ μιᾶς, πρὸς διέκπλουν καὶ περίπλουν*:—Explain.

6. Translate:—Demosthenes, Olynthiacs, III., §§ 5–6.

7. (*a*) Construe:—*μικρά, πρῶτον, ὑμᾶς, τ. ἢ τ. ἔτος.* (*b*) Explain:—*θεωρικά, νομοθέτας, λειτουργίαι, ψήφισμα, προβούλευμα.* (*c*) Name the dates and objects of the delivery of these orations.

8. Translate:—Thucydides, I., chap. 30. Define the geographical references.

9. Parse the following verbs:—*ἀνεπέπειστο, ἀποδεδέχθω, ὑπηργμένων, ἠνώχλει, προώμεθα, φήσαι, ἐτράποντο, ἐλᾶν, ἠφίετε, γραφῇ.*

10. (*a*) State the general rules of accentuation. (*b*) Decline with accents *κέρας, σῶμα, βασιλεύς, αἰών.* Contract and accentuate the *Pres.* and *Imperf. Ind. Act.* of *λυπέω.* (*c*) Distinguish between *θεῶν—θέων. τιμάν—τιμᾶν. ἄλλα—ἀλλά. βασίλεια—βασιλεία. ἔπαινος—ἐπαινός. ἰδοῦ—ἰδού. τινῶν—τίνων. φῶς—φώς.*

11. Illustrate the various uses of the Article in Greek.

# McGILL COLLEGE, MONTREAL.

## FIRST YEAR EXHIBITIONS, 1872.

### LATIN.

SEPTEMBER 16TH:—AFTERNOON, 2 TO 5.

*Examiner,* .....REV. GEORGE CORNISH, LL.D.

1. Translate:—Livy, V., Chap. viii., down to *poterant hoste.*

2. Explain carefully the cases of the following and point out their dependence:—(*a*) his tribunis. (*b*) Anxuri. (*c*) receptando. (*d*) Veiis. (*e*) munimentis.

3. (*a*) Write down the Nominative of the proper nouns from which the following are severally formed:—Capenatium, Faliscorum, Clusinum, and give the other terminations of Gentile names most commonly in use. (*b*) Explain the following terms used by Livy:—(1) Per intercessionem. (2) Fustuarium. (3) Aggerem ac vineas. (4) Cooptatos tribunos. (5) Denis millibus æris gravis. (6) Lectisternium.

4. Translate:—Cicero, Pro Leg. Manil., xii., down to *navem esse audiatis.*

5. Name the geographical position of the following places mentioned in this oration:—Cnidus, Colophon, Brundisium, Oceani ostium, Achaia. Duabus Hispaniis, Italiæ duo Maria. *Gentes ac nationes*:—Distinguish between these words.

6. On what occasion and for what object was this speech made by Cicero?

7. Translate:—Horace, Odes I., Ode vii.

8. Name the measure employed in the above extract, and scan vss. 1-8.

9. (*a*) Parse the following words:—Intactæ, percussit, hæsit, sĕvĕris, sĕvēris. desisse, amiserint, assuestis, deserturos, veniere. (*b*) Derive the following:—Exilis, semestri, lenimen, æquora, molli, simplex, nobilis, stipendium. (*c*) Decline:—Æra, republica, aurium, edite, teretes, grandinis.

10. Give instances of *Regular*, *Irregular*, and *Defective* Comparison of Adjectives.

11. Define and illustrate the terms *Root*, *Stem*, *Prefix*, and *Suffix*. What Suffixes are used to denote agency?

12. Translate into Latin:—

(*a*) It is the duty of all men to obey the laws, and to be mindful of the benefits they receive from the commonwealth. (*b*) Brutus pretended to be mad in order the more easily to deceive his enemies, and to serve his country. (*c*) He said that he had slept a good sleep, but had dreamed a very strange dream. (*d*) He was a man of a good disposition, and one whom no man excelled in valour and love to his country. (*e*) He was born at Rome, educated at Athens, married a wife at Corinth, and died at Carthage. (*f*) Herodotus relates, that Thales of Miletus predicted to the Ionians an eclipse of the sun, and that it took place at the appointed time. (*g*) It is of great importance to the state that bad men should not make the laws. (*h*) I fear that he is going to conceal these things from his parents, and that they will not find them out.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### LATIN.

SEPTEMBER 16TH :—AFTERNOON, 2 TO 5.

*Examiner*, .....REV. GEORGE CORNISH, LL.D.

1. Translate :—Cicero, Select Letters, ep. xxxvi.

2. Give the derivation and meaning of the following words taken from these Letters :—bellus, subimpudens, syngrapham, lautus, camino, andabatam, essedum, idus, creterrarum, intercalares.

3. Translate :—Horace, Odes III., Ode xxix., vss. 29-64.

4. (*a*) *Tyrrhena regum progenies* :—Explain this, and write a sketch of the life of Maecenas, naming the poets and literary men whom he was intimate with. (*b*) Write down the name and scheme of the measure of the above ode, and scan vss. 29-32.

5. Explain carefully the government of the following in ode xxix :—vs. 1, tibi. 5, morae. 24, ventis. 27, Cyro. 29, temporis. 41, sui, and name the case of each.

6. Translate :—Livy, V., chap. xliv.

7. Translate :—Virgil, VI., vss. 440-455. Explain briefly the allusions.

8. Parse the following verbs :—oblitum, palati, quæsita esset, depasta, supposta, desueta, præterlabere, lætere, defixæ, districti.

9. Write short notes, with dates, on (1) Consules. (2) Tribuni plebis. (3) Dictator. (4) Tribuni militum consulari protestate. Give the dates of the capture of Veii ; the battle of the Allia ; the Samnite Wars.

10. Explain the method of computing time used by the Romans, and translate, according to that method, September 16th, A. D. 1872.

11. What cases are the following words severally construed with :—parcus, plenus, edax, gratus, utilis, tenus, penes, coram, juvat, expedit, interest, induor, condemno, credo, prohibeo.

12. Translate into Latin :—Then a young man of noble blood, Caius Mucius by name, went to the senate, and offered to go to the camp of the Etruscans, and to slay king Porsenna. So he crossed the river and made his way into the camp, and there he saw a man sitting on a high place, and wearing a scarlet robe, and many coming and going about him ; and saying to himself, " This must be king Porsenna, " he went up to his seat amidst the crowd, and when he came near to the man he drew a dagger from under his garment, and stabbed him. But it was the king's scribe whom he had slain, who was the king's chief officer ; so he was seized and brought before the king, and the guards threatened him with sharp torments, unless he would answer all their questions.

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### LATIN.

SEPTEMBER 17TH:—MORNING, 9 TO 12.

*Examiner*,..... .....REV. GEORGE CORNISH, LL.D.

1. Translate:—Horace, Epistles I., ep. xviii., vss. 1-20.

2. Explain carefully the syntax of the following extracts:—(*a*) Magna coronari Olympia; 1,50. (*b*) Insanire putas sollemnia me; 1,101. (*c*) Non tu corpus eras sine pectore; 4, 6. (*d*) Dignis ait esse paratus; 7,22. (*e*) Togae simulet textore Catonem; 19, 13.

3. Translate:—Horace, Satires I., Sat. vi., vss. 65-88. Cite any other passages you may know in which Horace refers to his personal history.

4. In what department of Literature did the Romans display the greatest originality of conception and treatment? What reasons would you assign for this?

5. Translate:—Virgil, Georgics, I., 275-286.

6. Write explanatory notes on the mythological allusions of the above extract.

7. Translate:—Terence, Adelphi, Act iv., Scene 4, introducing an explanatory note where you think it necessary.

8. Parse, and write down the full forms, of:—erepsemus, surrexe, rere, submosses, peccaro, siit, operiere, consolere, reprensum, insuerit, cedo, sodes.

9. Translate:—Cicero, Select Letters, ep. cxlv. Expand the dates, and translate according to our method of reckoning.

10. Translate:—Tacitus, Annals I., chap. xix.

11. How do you explain the following forms of so-called adverbs—falso, qui, interea, ibi, peregre, statim, saltem, tenus, alias, forsan?

12. (*a*) What is the fundamental signification of the *Genitive* Case? (*b*) Explain the use of the Genitive in such expressions as:—talentum auri; quis nostrum; id loci; gratia beneficii; avidus laudis; æger animi; voti damnatus. (*c*) Also of the Dative in such as:—bonis invident; neque cernitur ulli; magno usui nostris fuit; quid mihi Celsus agit?

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### ANCIENT HISTORY.

SEPTEMBER 17TH :—AFTERNOON, 2 TO 5.

*Examiner*. ..... REV. GEORGE CORNISH, LL.D.

1. Write a sketch, with dates, of the rise and decline of the Babylonian empire, and dwell upon its leading characteristics.

2. Name the kingdoms of Asia Minor.

3. Give the dates in Jewish history of (*a*) the Exodus; (*b*) the reign of Saul; (*c*) the Revolt of the Ten Tribes; and (*d*) the Babylonian Captivity. Name the most prominent kings of Judah.

4. Explain the method of dating by Olympiads, and give the date B. C. of the 1st Ol. What great events in Grecian history took place in the years B. C., 594, 500, 490, 479, 445, 435, and 430? Give the corresponding Olympiads.

5. On what occasions were confederacies of the Greeks formed? What were the chief causes of their weakness?

6. Mention the principal epochs of Greek colonization, and the states most famous for their colonies.

7. An outline of the events, with dates, which led to the Roman subjugation of Greece.

8. Give the names and dates, in order, of the kings of Rome.

9. Enumerate the several changes in the constitution of Rome down to the period of the last secession of the Plebs in A. U. C., 467.

10. Define the situation of Veii. To what nation did it belong? By what Roman General, and when, was it captured?

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### GREEK AND LATIN PROSE COMPOSITION.

SEPTEMBER 16TH:—AFTERNOON, 2 TO 5.

*Examiner*,..... .....REV. GEORGE CORNISH, LL.D.

1. Translate into Greek:—

(*a*) The general said, that if the citizens had done what the philosopher told them to do they would now be faring better. (*b*) He sent his sons to the master in order to have them taught philosophy. (*c*) He was so ambitious as to bear and do anything for the sake of becoming powerful. (*d*) Having said this he rose up and went into the city. (*e*) Since this is the case, let us tarry no longer, but go away at once.

2. Translate into Latin:—

Then Virgilia and his children came up to him and kissed him, and all the noble ladies wept and bemoaned their own fate, and the fate of their country. At last Caius cried out, "O mother, what has thou done to me?" and he wrung her hand vehemently and said, "Mother, thine is the victory; a happy victory for thee and for Rome, but shame and ruin to thy son." Then he fell on her neck and embraced her, and he embraced his wife and his children, and sent them back to Rome, and led away the army of the Volscians, and never afterwards attacked Rome any more: but he lived on a banished man among the Volscians, and when he was very old, and had neither wife nor children around him, he was wont to say that "now in old age he knew the full bitterness of banishment."

# McGILL COLLEGE, MONTREAL.

## FIRST YEAR EXHIBITIONS, 1872.

### MATHEMATICS.

SEPTEMBER 17TH:—MORNING, 9 TO 12.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. The square described on the hypotenuse of a right angled triangle is equal to the sum of the squares described on the sides.

a. Find a square equal to the difference of two given squares.

2. If a right line be divided into any two parts the rectangle under the whole line and one part is equal to the square of that part and the rectangle under the parts.

3. The sum of the squares of the sides of any quadrilateral exceeds the sum of the squares of the diagonals by four times the square of the line joining their middle points.

4. On a given right line construct a segment of a circle containing an angle equal to a given one.

5. The angle in a semi-circle is a right angle, in a segment greater than a semi-circle is acute and in a segment less, is obtuse.

6. In a right angled triangle the perpendicular on the hypotenuse divides the triangle into parts similar to the whole and to each other.

7. Find a mean proportional between two given lines.

8. Find a fourth proportional to three given lines.

9. If four right lines be proportional, the rectangle under the extremes is equal to the rectangle under the means.

10. In any quadrilateral, the rectangle under the diagonals is equal to the sum of the rectangles under the two pairs of opposite sides.

# McGILL COLLEGE, MONTREAL.

## FIRST YEAR EXHIBITIONS, 1872.

### MATHEMATICS.

SEPTEMBER 17TH :—AFTERNOON. 2 TO 5.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. The sum of an Arithmetical series is 49, the last term is three times the first, and the number of terms is equal to the first term. Find the series.

2. Find the sum to ten terms, and also to infinity, of the series:

$$1 + \tfrac{1}{2} + \tfrac{1}{4} + \tfrac{1}{8} +, \text{ \&c.}$$

3. Find two harmonic means between 84 and 56.

4. Solve the equations.

$$axy = c\,(bx + ay),\ bxy = c\,(ax - by);$$

$$\sqrt[3]{1+x} + \sqrt[3]{1-x} = \sqrt[3]{2};$$

$$\sqrt{4a+x} = 2\sqrt{b+x} - \sqrt{x};$$

$$\frac{x+2}{x-1} - \frac{4-x}{2x} = 2\tfrac{1}{3}$$

5. Find two numbers in the ratio of 4 to 5 such that if 6 be added to the greater number and 1 to the smaller, the square roots of the resulting numbers shall differ by 1.

6. A is twice as old as B. Twenty-two years ago he was four times as old as B. What is A's. age?

7. Find the value of

$$\frac{x+2a}{x-2a} + \frac{x+2b}{x-2b}$$

$$\text{when } x = \frac{4ab}{a+b}$$

8. Multiply $x + 1 + \dfrac{1}{x}$ by $x - 1 + \dfrac{1}{x}$.

9. Reduce to its lowest terms

$$\frac{6ac + 10bc + 9ax + 15bx}{6c^2 + 9cx - 2c - 3x}$$

10. Find the number which exceeds by $171\frac{3}{5}$ the difference between $243\frac{5}{2}$ and $61\frac{3}{3}$.

11. Show that $3 + \dfrac{1}{7 + \frac{1}{16}} = 3\cdot14159$ nearly.

12. If a cubic foot of water weigh 1000 ounces and a gallon weigh 10lbs, find the number of gallons of water in a reservoir 100 feet long by 30 broad and 20 deep.

13. What decimal of a square mile is one acre.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### MATHEMATICS.

SEPTEMBER 17TH :—MORNING, 9 TO 12.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. The square of the sum of two lines exceeds the square of their difference by four times the rectangle under them.

2. Construct a square equal to a given rectilineal figure.

3. If the opposite angles of a quadrilateral be together equal to two right angles it can be inscribed in a circle.

4. In the same circle angles at the centre are in the same ratio as the arcs on which they stand.

5. Find a third proportional to two given lines.

6. Given $sin\ A = \frac{1}{2}$, find *versin* $A$.

7. Prove $\dfrac{sin\ A + sin\ B}{sin\ A - sin\ B} = \dfrac{tan\ \frac{1}{2}(A+B)}{tan\ \frac{1}{2}(A-B)}$.

8. In any triangle

$$cos\ \tfrac{1}{2}A = \sqrt{\frac{s(s-a)}{bc}}.$$

9. Solve the simultaneous equations : —

$$3\ cos\ x + 2\ sin\ x = 3$$
$$cos^2 x + sin^2 x = 1\ .$$

10. Solve the equations :—

$$\sqrt{a^2 + x^2} + \sqrt{a^2 - x^2} = b$$
$$\frac{1}{x-1} - \frac{2}{x+7} = \frac{1}{7(x-1)}$$

11. Divide 112 into two parts such that one shall be $2\frac{1}{2}$ times the other.

12. Divide $a + b$ by $\sqrt[3]{a} + \sqrt[3]{b}$.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### MATHEMATICS.

SEPTEMBER 17TH :—AFTERNOON, 2 to 5.

*Examiner*,..... ..... ALEXANDER JOHNSON, LL.D.

1. If three pairs of tangents be drawn to a circle from three points in a straight line, they will cut any seventh tangent in involution.

2. If a system of circles have a pole and po'ar in common, they' have the same radical axis.

3. Describe a triangle which shall have its vertices on three given straight lines, and its sides tangents to a given circle.

4. If a system of circles be described cutting a given circle orthogonally, and having their centres in a given straight line, the radical axis of the system will be the perpendicular from the centre of the given circle on the given line.

5. Given base and ratio of sides of a triangle find the locus of the vertex.

6. Through a given point within a given angle, draw a straight line cutting the legs of the angle, so that it shall be divided in a given ratio.

7. Convert 17486 in the denary scale into the equivalent in the senary scale.

8. Find a series of fractions converging to $\frac{2}{7}\frac{5}{6}\frac{1}{4}$.

9. Find the number of combinations of the letters in "University" taken three together.

10. Given $y^3 - axy - b^3 = 0$ find y in a series of powers of x.

11. Two white and three black balls are placed in a bag, find the chance of drawing out a white and a black ball, if two be taken out at once.

12. Expand $(1-x)^{-\frac{1}{2}}$ by the Binomial Theorem.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXAMINATIONS, 1873.

### MATHEMATICS.

Subjects 1 to 3.

Examiner,..... Alex. Johnson, LL.D.

1. If three pairs of tangents be drawn to a circle from three points in a straight line, they will not any seventh tangent in involution.

2. If a system of circles have a pole and polar in common, they have the same radical axis.

3. Describe a triangle which shall have its vertices on three given straight lines, and its sides tangents to a given circle.

4. If a system of circles be described cutting a given circle orthogonally, and having their centres in a given straight line, the radical axis of the system will be the perpendicular from the centre of the given circle on the given line.

5. Given base and ratio of sides of a triangle to find the locus of the vertex.

6. Through a given point within a given angle, draw a straight line cutting the legs of the angle, so that it shall be divided in a given ratio.

7. Convert 17456 in the denary scale into the equivalent in the senary scale.

8. Find a series of fractions converging to $\frac{4}{11}$.

9. Find the number of combinations of the letters in "University" taken three together.

10. Given $y^4 - xy^3 - 5^4 = 0$ find $y$ in a series of powers of $x$.

11. Two white and three black balls are placed in a bag, find the chance of drawing out a white and a black ball, if two be taken out at once.

12. Expand $(1-x)^{-\frac{1}{2}}$ by the Binomial Theorem.

# McGILL COLLEGE, MONTREAL.

## SCIENCE SCHOLARSHIPS, 1872.

## DIFFERENTIAL AND INTEGRAL CALCULUS.

SEPTEMBER 16TH:—MORNING, 9 TO 12.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. If $u = \frac{\sqrt{x}+\sqrt{y}}{x+y}$ prove that

$$x\frac{du}{dx} + y\frac{du}{dy} = -\tfrac{1}{2}u.$$

2. Eliminate $a$ and $b$ by differentiation from

$$y = a\cos mx + b\sin mx.$$

3. Find $\frac{dy}{dx}$ from

$$y^3 - 3axy + x^3 = 0.$$

4. Prove the formula for the radius of currature

$$R = \frac{\left(1+\frac{dy^2}{dx^2}\right)^{\frac{3}{2}}}{\frac{d^2y}{dx^2}}$$

5. If $A$ be the area and $s$ the length of a curve $y = f(x)$ prove

$$\frac{dA}{dx} = y\,;\ \frac{ds}{dx} = \sqrt{1+\frac{dy^2}{dx^2}}$$

6. If $f(x,\ y) = u$, find the expansion of $f(x+h,\ y+k)$; assuming Taylor's Theorum.

7. Find the value of $x$ that $u$ may be a maximum or minimum in

$$u = (\sin x)^m.\ \{\sin(a-x)\}^n.$$

8. If $u = \frac{\log x}{x}$ find the value of $u$ when $x$ is infinity.

9. Expand $e^{\sin x}$ by MacLaurin's Theorem.

10. Find the area of the circle.

11. Find the lenth of a quadrant of the ellipse.

12. Find the integrals.

$$\int_\theta (\sin\theta)^3\,;\ \int_x e^{ax}\sin kx\,;\ \int_x \frac{1}{e^{\sqrt{x}}+1}\,;\ \int_x \frac{1}{x\sqrt{a+bx}}$$

13. Find the intergrals.

$$\int_x \frac{x}{(x-2)(x+3)^2}\,;\ \int_x \frac{1}{x(1+x^3)}\,;\ \int \frac{1}{\sin\theta\cos\theta}\,;$$

14. In integrating $\frac{dx}{du} = x^{m-1}\left(a+bx^n\right)^{\frac{p}{q}}$ show that it may be rationalised when $\frac{m}{n}$ or $\frac{m}{n}+\frac{p}{q}$ is an integer.

15. Find $\frac{du}{dx}$ when

$$u = \sin(\log x)\,;\ u = (\sin x)^x\,;\ u = \frac{x}{\sqrt{1+x^2}}.$$

# McGILL COLLEGE, MONTREAL.

## SCIENCE SCHOLARSHIPS, 1872.

### ANALYTIC GEOMETRY.

MONDAY, SEPTEMBER 16:—AFTERNOON, 2 TO 5.

*Examiner*,..... .....ALEXANDER JOHNSON, LL.D.

1. Show that

$$l^2 \alpha^2 + m^2 \beta^2 = n^2 \gamma^2$$

denotes a conic with respect to which $\alpha$, $\beta$, $\gamma$, are the sides of a self-conjugate triangle.

2. If $L$ and $M$ are any two tangents to a conic and $R$ their chord of contact, find the equation of a chord joining two points $\mu$ and $\mu'$ on the curve, and also the equation of the polar of any point.

3. Given four points of a conic, the anharmonic ratio of the pencil joining them to any fifth point in constant.

4. The focal chord of curvature of any conic is equal to the focal chord of the conic drawn parallel to the tangent at the point.

5. A conic being given by the general equation, find the condition that the pole of the axis of $x$ should lie on the axis of $y$, and vice versâ.

6. Find the locus of the points of contact of tangents to a series of confocal ellipses from a fixed point on the axis major.

7. Find the locus of the intersection of the perpendicular from the centre on any tangent, with the radius vector from a focus to the point of contact.

8. Give Boole's proof that if we transform an equation of the second degree from one set of rectangular axes to another, the quantities $a + b$ and $ab - h^2$, will remain unaltered.

9. If two diameters of a conic section be such, that one of them bisects all chords parallel to the other, then, conversely, the second will bisect all chords parallel to the first.

10. Find the condition that the general equation of the second degree in $\alpha$, $\beta$,

$$a\,\alpha^2 + b\,\beta^2 + c\,\gamma^2 + 2\,f\,\gamma\,\beta + 2\,g\,\gamma\,\alpha + 2\,h\,\alpha\,\beta = 0.$$

may represent a circle.

11. Given any number of points, if a right line be such that $m'$ times the perpendicular on it from the first point $+ m''$ times the perpendicular on it from it $+$ &c. be constant, the line will always touch a circle.

12. Find the angle contained by the lines represented by the equation $x^2 - pxy + qy^2 = 0$.

13. If the co-efficients in the equation

$$A\,x + B\,y + C = 0.$$

be connected by the relation

$$A\,a + B\,b + C\,c = 0.$$

where $a$, $b$, $c$, are constant and $A$, $B$, $C$, may vary, the line represented by this equation will always pass through a fixed point.

# McGILL COLLEGE, MONTREAL.

## SCIENCE SCHOLARSHIPS, 1872.

### HIGHER ALGEBRA AND TRIGONOMETRY.

SEPTEMBER 17TH :—MORNING, 9 TO 12.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. If a determinant vanish, its minors $A_1$, $A_2$, &c., respectively proportional to $B_1$, $B_2$, &c.

2. A skew symmetrical determinant of odd degree vanishes.

3. Prove $\begin{vmatrix} (b+c)^2, & a^2, & a^2, \\ b^2, & (c+a)^2, & b^2, \\ c^2, & c^2, & (a+b)^2 \end{vmatrix} = 2abc\,(a+b+c)^3$

4. Find the sum of the fourth powers of the roots of the equation
$$x^5 - 3x^3 - 5x + 1 = 0.$$

5. Calculate by Horner's method the real roots of
$$x^3 + 2x - 20 = 0.$$

6. Apply Newton's method to find the root between 2 and 3 of
$$x^3 - 4x^2 - 7x + 24 = 0.$$

7. Solve the equations
$$x^6 - 1 = 0\,;$$
$$1 + x^5 = a\,(1+x)^5$$

8. Remove the second term and solve the equation
$$x^3 - 18\,x^2 + 157\,x - 510 = 0.$$

9. Prove De Gua's formula for the spherical excess $A$,
$$Cot\,\tfrac{1}{2}A = \frac{1 + cos\,a + cos\,b + cos\,c}{2\sqrt{sin\,s\,sin\,(s-a)\,sin\,(s-b)\,sin\,(s-c)}}$$

10. In a spherical triangle
$$tan\,\tfrac{1}{2}(A+B) = \frac{cos\,\tfrac{1}{2}(a-b)}{cos\,\tfrac{1}{2}(a+b)}\,cot\,\tfrac{1}{2}C$$

11. If $\alpha + \beta + \gamma = 180^0$ prove
$$sin\,\alpha - sin\,\beta + sin\,\gamma = 4\,sin\,\tfrac{1}{2}\alpha\,cos\,\tfrac{1}{2}\beta\,sin\,\tfrac{1}{2}\gamma$$

12. Prove.
$$cos\,a = 1 - \frac{a^2}{1\cdot 2} + \frac{a^4}{1\cdot 2\cdot 3\cdot 4} - \&c$$

# McGILL COLLEGE, MONTREAL.

## SCIENCE SCHOLARSHIPS, 1872.

### MATHEMATICS (ORDINARY).

SEPTEMBER 17TH:—AFTERNOON 2 TO 5.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. If through any two points, Q and Q' of an hyperbola a line R Q Q' R' be drawn in any direction meeting the asymptotes in R and R' ; then R Q =R' Q'.

2. The tangents at the extremities of a focal chord of an hyperbola intersect on the directrix.

3. If P U be the diameter of the circle of curvature at the point P of the ellipse, and P F be drawn at right angles to C D, prove P U. P F=2 C $D^2$.

4. The sum of the squares of any two conjugate semidiameters of the ellipse is constant.

5. If two chords of a parabola intersect one another, the rectangles contained by their segments are in the ratio of the parameters of the diameters which bisect the chords.

6. Draw a tangent to a parabola from a point without it.

7. Similar polygons inscribed in circles are to one another as the squares on their diameters.

8. If two straight lines be cut by parallel planes they shall be cut in the same ratio.

9. Expand $(a + x)^{-\frac{1}{2}}$ by the Binomial theorem.

10. Sum the series $\frac{1}{3} + \frac{5}{6} + \frac{4}{3} +$ &c., to $n$ terms.

11. Insert 3 Geometric means between $\frac{1}{9}$ & 9.

12. Calculate sin 18° to three places of decimals.

13. The sides of a triangle are 3, 4, 5, find the angle opposite the last.

# McGILL COLLEGE, MONTREAL.

## ANNE MOLSON MATHEMATICAL PRIZE, 1872.

### CALCULUS.

SEPTEMBER 17TH:—AFTERNOON, 2 TO 5.

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Find $y$ from the equation

$$y = m + e \sin y$$

by Lagrange's Theorem.

2. Prove the Theorem.

3. If $\frac{d^2u}{dx^2} + \frac{d^2u}{dy^2} = 0$ and $x^2 + y^2 = r^2$, transform to an equation in which $r$ is the independent variable.

4. Find the evolute of the ellipse.

5. Find the curve which touches all the lines defined by

$$y = m x + \sqrt{m^2 a^2 + b^2}: a \text{ and } b \text{ being constant.}$$

6. Given the sum of the three axes of an ellipsoid, find them when the volume of the ellipsoid is greatest.

7. Find the area of the spiral where $r = a \theta^n$.

8. Find the volume of a sphere.

9. Integrate

$$\frac{du}{d\theta} = (\sin \theta)^m (\cos \theta)^n; \quad \frac{du}{d\theta} = \frac{1}{(\tan \theta)^m}.$$

10. Integrate $\frac{du}{dx} = \frac{a + b \cos x}{(a + b \cos x)^m}$.

# McGILL COLLEGE, MONTREAL.

## ANNE MOLSON MATHEMATICAL PRIZE, 1872.

### GEOMETRY OF THREE DIMENSIONS.

SEPTEMBER 17TH:—MORNING, 9 TO 12.

*Examiner*, .....ALEXANDER JOHNSON, LL.D.

1. Find the surface of revolution generated by a right line turning round a fixed axis which it does not intersect.

2. Find the equation of the cone whose vertex is $x'\ y'\ z'$, and which stands on the conic in the plane of $x\ y$, $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$.

3. A plane passes through a fixed point, and the points where it meets three fixed lines are joined by planes, each to one of three other fixed lines; find the locus of the intersection of the joining planes.

4. Find the surface generated by a right line which moves so as always to meet three fixed right lines.

5. Any two circular sections of opposite systems on the ellipsoid lie on the same sphere.

6. Prove the expression for the perpendicular on the tangent plane to an ellipsoid from the centre

$$p^2 = a^2 \cos^2 \alpha + b^2 \cos^2 \beta + c^2 \cos^2 \gamma.$$

7. Find the condition that the plane

$$\alpha x + \beta y + \gamma z + \delta = 0.$$

should touch the ellipsoid

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$

8. Find the locus of the intersection of three tangent planes at the extremities of three conjugate diameters.

9. Find the equation of the plane through the two intersecting lines.

$$\frac{x - x'}{\cos \alpha} = \frac{y - y'}{\cos \beta} = \frac{z - z'}{\cos \gamma}\ ;\ \frac{x - x'}{\cos \alpha'} = \frac{y - y'}{\cos \beta'} = \frac{z - z'}{\cos \gamma'}.$$

10. Find the equation of the plane through $x'\ y'\ z'$, and through the intersection of the planes

$$Ax + By + Cz + D,\ A'x + B'y + C'z + D'.$$

11. Find the equation of the plane drawn through a given line perpendicular to a given plane.

12. The sections of a quadric by parallel planes are similar to each other.

# McGILL COLLEGE, MONTREAL.

## ANNE MOLSON MATHEMATICAL PRIZE, 1872.

### MECHANICS.

SEPTEMBER 18TH:—MORNING, 9 TO 12.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. If $X$, $Y$, $Z$, by the rectangular components of a force or forces tending to fixed centres and being functions of the distances from these centres then $X\,dx + Y\,dy + Z\,dz$ is a complete differential.

2. Find the equations of motion, in a resisting medium, of a particle acted on by any forces.

3. A particle acted on by gravity is projected from the vertex, along a smooth parabola whose axis is vertical, and vertex upwards; determine the motion and the pressure on the curve.

4. A particle, starting from rest, descends down the convex side of a circle from a given point in its circumference: find where it will leave the curve.

5. A particle acted on by gravity descends from any point in the arc of an inverted cycloid, of which the axis is vertical, to the lowest point of the curve: find the whole time of descent.

6. A particle describes the arc of a cycloid under the action of a force parallel to its base: find the law of the force.

7. Find with what velocity a ball must impinge upon another equal ball moving with a given velocity, that the impinging ball may be reduced to rest by the collision, the common elasticity of the balls being known.

8. A flexible thread rests upon a smooth surface, under the action of any forces; investigate its form.

9. A beam rests against a smooth vertical plane and a smooth curve; find the nature of the curve that the beam may be at rest in all positions.

10. Two weights resting on two smooth inclined planes, are connected by a given elastic string; find their position of equilibrium.

11. Find the equation of the catenary when the unit of mass varies as $y^n \sin\phi$, where $n$ is any positive quantity, and $\phi$ is the angle of inclination of the element of the curve at any point to the horizon.

12. Find the centre of gravity of any arc of a circle.

# McGILL COLLEGE, MONTREAL.

## ANNE MOLSON MATHEMATICAL PRIZE, 1872.

### ASTRONOMY—HYDROSTATICS.

SEPTEMBER 18TH :—AFTERNOON, 2 TO 5.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Describe Bessel's method for ascertaining the parallax of the star 61 Cygni.

2. Find the greatest equation of the centre in a given elliptic orbit.

3. The radius of curvature of an arc of the terrestial spheroid in a plane perpendicular to the meridian for any point. (Astronomical latitude $= \phi$) is

$$a\,(1 + e^2\,sin^2\,\phi) \text{ nearly.}$$

4. Calculate the value of the Diurnal aberration for latitude 45° ; and find the effect on the time of transit of a star whose declination is $\delta$.

5. Find a formula for calculating the effect of refraction on the time of rising of a star.

6. Show how the actual longitude of the moon's node is to be found at any time.

7. A semicular area is just immersed in a fluid, its diameter being horizontal ; the density of the fluid varies as the depth ; find the centre of pressure.

8. Divide a hollow sphere just filled with fluid, by a circle parallel to the horizon, into two parts which shall be equally pressed.

9. In an air-pump a leakage takes place during a stroke, by which a quantity of air is admitted, proportional to the difference of the densities of the external and internal air at the beginning of the stroke ; find the diminution of density in the receiver in one stroke.

10. If a plane area immersed in a fluid revolve about any axis in its own plane ; prove that the centre of pressure describes a straight line in the plane.

# McGILL COLLEGE, MONTREAL.

## SCIENCE SCHOLARSHIPS, 1872.

WEDNESDAY, SEPTEMBER 18TH:—MORNING, 9 TO 12.

### LOGIC.

*Examiner*,.....THE REV. J. CLARK MURRAY.

1. (*a*) Distinguish *Science* and *Art*.
   (*b*) Shew that Logic is rather a science than an art.

2. (*a*) Distinguish the *extension* and the *intension* of a conception.
   (*b*) Shew that they are in an inverse ratio to one another.
   (*c*) Explain the correspondence of extension and intension to the processes of *division* and *definition*.

3. (*a*) Define *relative* conceptions.
   (*b*) Of the following conceptions state which are, which are not, relative:—*employer*, *man*, *horse*, *sign*, *cause*.

4. Give the sign. the quantity, the quality, and the relation of each of the following judgments:—

   (*a*) Equilateral triangles are equiangular;
   (*b*) Two straight lines cannot enclose a space;
   (*c*) Aristotle was the most distinguished pupil of Plato;
   (*d*) Some men are poets;
   (*e*) Nearly all the crew were lost.

5. Distinguish *explicative* and *ampliative* judgments.

6. Of the following judgments state which are explicative, which ampliative:—

   (*a*) An isosceles triangle is one which has two sides equal.
   (*b*) Every event must have a cause.
   (*c*) Two and two make four.

7. Of the following inferences, state which are *mediate*, which *immediate*, giving the reason for your answer in each case:—

   (*a*) No one is free who is enslaved by his appetites; and therefore no sensualist is free.
   (*b*) Negative propositions distribute their predicate; therefore a proposition, which does not distribute its predicate, is not negative.
   (*c*) This man is either a knave or a fool; but, as he is not a fool, he must be a knave.

8. Distinguish (*a*) *figured* and *unfigured* syllogisms, (*b*) the different figures of the former.

9. In what figure, and in what mode, is each of the following syllogisms drawn?

   (*a*) Electricity does not travel at the limited rate of 200 feet per second; but the nerve-force travels at that rate: therefore the nerve-force is not electricity.

   (*b*) Things, which are equal to the same, are equal to one another: AB and CD are equal to the same EF; and therefore they are equal to each other.

10. Distinguish *prosyllogism* and *episyllogism*, giving an example of each.

# McGILL COLLEGE, MONTREAL.

## FIRST YEAR EXHIBITIONS, 1872.

### ENGLISH.

SEPTEMBER 18TH :—MORNING, 9 TO 12.

*Examiner,*.....VEN. ARCHDEACON LEACH, D.C.L.

1. Which are the principal and the secondary elements of a sentence ?
2. Distinguish between concrete and abstract nouns.
3. Mention the principal idiomatic ways in which the pronoun " it " is employed.
4. Explain the distinction between the restrictive and co-ordinating employment of the relative pronouns, and state the rule thence deduced.
5. By what means, besides the use of pronouns, may the repetition of nouns be avoided ?
6. Mention the different classes of adjectives as given, with the subdivisions of each class.
7. How is the common employment of adjectives for adverbs accounted for ?
8. State the principal equivalents for adverbs as used in composition.
9. What is meant by the adjective meaning of the preposition " of " ? —Give an example of its use indicating apposition.
10. State the classification of conjunctions as given, with the sub-divisions.
11. Mention the three ways of distinguishing the gender of nouns.
12. Give the general rule and the rule exceptional for the formation of the plural of nouns.
13. Mention the peculiarities in the use of the pronoun " its. "
14. State the substance of what is given with regard to participles.
15. Give the inflections that remain in English verbs, and state the ground of distinction between strong and weak conjugations.
16. Give the principal directions for the proper employment of " shall " and " will."
17. State the rule for the employment of the subjunctive mood.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### ENGLISH.

SEPTEMBER 18TH :—MORNING, 9 TO 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give the substance of the historical account of the Anglo-Saxon element of the English language.

2. Mention the different periods that mark the introduction of the Latin element, and the distinctive characters of the classes of words assigned to each period.

3. Give the principal prefixes of the Celtic that are employed in names of places, with their significations.

4. Give the principal parts of words of Scandinavian origin that are found in names of places, with their significations.

5. Mention the principal rules for discriminating words of classical from words of Anglo-Saxon origin.

6 In what different ways are nouns derived from verbs ?

7. What are meant by Clauses, Principal and Subordinate ?

8. What are meant by Noun, Ajective and Adverbial Clauses ? Give an example of each class.

9. Which are the co-ordinating and which the subordinating conjugations ?

10. State the principal considerations in regard to the use of collective nouns.

11. Give the substance of the critical remarks on the use of " every."

12. What are the exceptions to the general rule for the order or arrangement of noun and adjective.

13. Give the rules for the position of adverbs.

14. Give examples of Ellipsis, Pleonasm, Parenthesis.

15. Explain the distinction observed by idiomatic writers between "that" on the one hand, " who" and " which " on the other.

16. Distinguish between Barbarisms and Solecisms, and give examples of each kind.

17. Give the prepositions appropriate to the following words :—adapted, averse, confide, consonant, derogatory, differ, expert, independent, recreant, replete.

18. What is metre ?

19. How is quantity measured in the classic languages and in the English ?

20. Mark in one or two words the principal accent and the second or subordinate.

21. State the essentials of a perfect rhyme.

22. Give examples of double and triple rhymes.

23. What is meat by alliteration ?

24. What is meant by iambic, trochaic, dactylic, amphibrachic, anapæstic, monometers, dimeters, trimeters ?

# McGILL COLLEGE, MONTREAL.

## SCOTT EXHIBITION, 1872.

## ENGLISH.

SEPTEMBER 18TH :—MORNING, 9 TO 12.

*Examiner*, .....VEN. ARCHDEACON LEACH, D.C.L.

1. Which are the defining marks of a noun.

2. Explain the distinction between nouns general and significant, and Nouns Singular and Significant.

3. Give the classification of pronouns.

4. Give the definition of an adjective;—how is an adjective distinguished from a noun?

5. What are verbs transitive, intransitive, copula or apposition verbs?

6. Give examples of the preposition "of" employed in a partitive meaning, in an attributive meaning, in an adjective meaning.

7. Some words are both prepositions and adverbs; how is it known in any example which of the two they are?

8. Mention the different subdivisions of co-ordinating and subordinating conjunctions.

9. What *time* is expressed by the present indefinite, the present progressive, the past indefinite, the past progressive, the perfect?

10. Give examples of noun, adjective and adverbial clauses.

11. State the rules for the proper position of adverbs in sentences.

12. State the rule for the placing of the article.

13. State the rules given in the case when two or more pronouns of different persons and of the singular number are connected by the alternative conjunctions.

14. "Each," "every," &c., are joined to a singular verb,—in what cases is it allowable to use the plural?

# McGILL COLLEGE, MONTREAL.

## SCOTT EXHIBITION, 1872.

## ENGLISH.

*(Collier.—Johnson's Lives.)*

SEPTEMBER 18TH :—AFTERNOON, 2 TO 5.

*Examiner,*.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give some account of the chief material, of which ancient books were made.

2. Mention the principal Anglo-Saxon writers, and the chief productions in that tongue.

3. Give the leading facts in the History of English Metrical Romance.

4. Give an outline of the life of Wicliffe.

5. Mention the principal facts in regard to the introduction of printing into England.

6. Give some account of the earliest form of the English Drama.

7. Give the substance of Dr. Johnson's remarks on the Metaphysical Poets. (Life of Cowley.)

8. Which are the parts of a poem, tragic or heroic, as laid down by Dryden?

9. Mention some of the arguments of Dennis in his criticism of the Cato of Addison.

10. Mention the principal facts in the life of Savage, and Dr. Johnson's concluding remarks.

11. Give the substance of the critical remarks on Watts as a poet.

# McGILL COLLEGE, MONTREAL.

## SCOTT EXHIBITION, 1872.

### ENGLISH.

(*Hallam's Middle Ages.—Chaps. VIII. and IX.*)

SEPTEMBER 19TH :—AFTERNOON, 2 TO 5.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. How is the unresisting submission of the English to the Normans after the battle of Hastings to be accounted for?

2. Mention the principal circumstances that prove the tyrannical character of William's government.

3. Give the substance of Hallam's "three material propositions as to the state of the English Constitution during the reign of Henry III.

4. When was "the hereditary succession of the crown" established, and what were the circumstances that concurred to bring about the recognition of that right?

5. Mention the causes that tended to produce civil equality among freemen in England.

6. Give some account of the origin of popular representation and of the division of Parliament into two houses.

7. Mention the important Constitutional principles established or acquired during the reign of Edward III.

8. In what respects is the reign of Richard II. an interesting part of the Constitutional history of England?

9. How is the corruption of the Latin language in Gaul, Spain and Italy accounted for?

10. Mention the principal causes of the preservation of ancient learning during the Dark and Middle ages.

11. Show that the superstitions of those ayes were "not altogether unmixed with good."

12. Give the substance of the remarks on the subject of Civil Architecture.

# McGILL COLLEGE, MONTREAL.

## SCOTT EXHIBITION, 1872.

### ZOOLOGY.

SEPTEMBER 19TH:—MORNING, 9 TO 12.

*Examiner*,..... J. W. DAWSON, LL.D., F.R.S.

1. The *Foraminifera*.—Give their general characters, geological distribution and agency as rock builders.

2. State the distinction between *Tabulata* and *Rugosa*, and their relations to modern corals.

3. What are *Cystideæ* and *Blastoideæ*. Give examples.

4. Describe the parts of an *Echinus*.

5. Name the characteristic genera of Brachiopods in the Silurian Period, and describe one.

6. State the characters of the genus *Nautilus*, and the points of distinction between it and *Ammonites*.

7. Describe the structures of a Trilobite.

8. Give the classification of the *Annelida*, with examples of the orders.

9. State the characters of the orders *Neuroptera*, *Coleoptera*, and *Orthoptera*.

10. State what you know of the specimens exhibited.

# McGILL COLLEGE, MONTREAL.

## SCIENCE SCHOLARSHIPS.

### BOTANY.

SEPTEMBER 19TH:—MORNING, 9 TO 12.

*Examiner*, .....J. W. DAWSON, LL.D., F.R.S.

1. Describe the tissues found in an ordinary Exogenous stem.

2. Explain the difference beween the cells of a Nutshell or Peach-stone and ordinary parenchyma.

3. Describe the parts of a Dicotyledonous Seed.

4. Explain the structure and functions of the Parenchyma of the Leaf.

5. Describe the fertilization of an Orthotropous Ovule.

6. Describe the organs of fructification in *Equisetaceæ*.

7. By what characters can the wood of Palms and Tree Ferns be distinguished.

8. What characters of Flowers are indicated by the terms Monadelphous, Syngenesious, Epigynous, Gamopetalous. Give Canadian examples.

9. State the distinctive characters of *Rosaceæ*, *Ericaceæ*, *Liliaceæ*, with Canadian examples of the principal genera.

10. State what you know of the specimens exhibited.

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### CHEMISTRY.

SEPTEMBER 19TH :—AFTERNOON, 2 to 5.

*Examiner*.....B. J. HARRINGTON, B.A., PH.D.

1. Name a metal capable of decomposing water at ordinary temperatures, and state the products of the decomposition.

2. What are the allotropic forms of Carbon, and what the properties of its principal oxide?

3. Explain the reactions indicated by the following formulæ:

$$KNO_3 + H_2SO_4 = HNO_3 + HKSO_4.$$

$$3Cu + 8HNO_3 = 3(Cu\,2NO_3) + 2NO + 4H_2O.$$

4. What is peculiar in the volumes occupied by the gaseous atoms of Arsenic and Phosphorus?

5. What are the relative positions of the axes in the Regular, the Hexagonal and the Triclinic systems of crystallization?

6. What are the principal salts of Lead, and how may they be prepared.

7. By what tests may Copper and Mercury be detected when in solution?

8. What are some of the properties peculiar to alloys?

# McGILL COLLEGE, MONTREAL,

## SCIENCE SCHOLARSHIPS, 1872.

### CHEMISTRY.

SEPTEMBER 19TH :— AFTERNOON, 2 TO 5.

*Examiner*,.....B. J. HARRINGTON, B.A., PH.D.

1. How may the composition of water be determined, by volume and by weight?

2. What is the ordinary relation between the density and the molecular weight of a compound gas?

3. In what does the bleaching power of Chlorine differ from that of Sulphur Dioxide?

4. How is Phosphorus prepared, and what are its Oxides?

5. Explain what is meant by Specific Heat and Atomic Heat.

6. What are the differences in the composition of Crown, Bohemian and Flint glass?

7. What are the best tests for Iron, Silver and Gold, when in solution?

8. Explain the ways in which Metallic Salts may be formed, and give examples of Monobasic, Dibasic and Tribasic Acids.

9. Explain what is meant by a "Homologous Series," and by "Fractional Distillation."

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### ENGLISH.

(*Bacon's Essays.—Trench*).

SEPTEMBER 18TH :—MORNING, 9 TO 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give the substance of Lord Bacon's remarks on, 1st. Death; 2nd. Judicature.

2. Write down any observations you may have made with regard to 1st, the language; 2nd, the style; 3rd, the matter of the Essays.

3. Write a few sentences composed of Saxon words only.

4. Upon what grounds is it asserted that the Latin element of the English language is indispensable *equally* with the Saxon element?

5. In regard to the use of Saxon and Latin words, give examples in illustration of the mode adopted in the authorized version of the Bible.

6. What reasons may be assigned for the permanent exclusion of a vast number of classical words that were employed from the time of Henry VIII till the reign of Charles II?

7. Give some examples of words formed from the names of persons actual or mythical.

8. Give some examples of new words formed by the practice of splitting single words into two or more.

9. Mention some of the principal instances of strong præterites that have disappeared.

10. As instances of the changed meaning of words, explain the following :—Baffled, Influence, Carriage, Religion, Kindly, Worship, Painful.

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### ENGLISH LITERATURE.

SEPTEMBER 18TH:—AFTERNOON, 1 to 5.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Distinguish by their dates and designations the great periods into which the history of English Literature is divided.

2. Give some account of the Irish and of the Welsh Celtic literary remains.

3. Mention, with some characteristic notices, the principal writers in Latin, in the Anglo-Saxon period.

4. The verse and prose of almost all Anglo-Saxon relics differed in origin and purpose from the specimens of a similar age in other nations—how is this shown as matter of fact, and how is it accounted for?

5. Show historically how the language of nations is affected differently according to the different kinds of conquest they are subjected to.

6. State in regard to the Norman Conquest what were its immediate effects upon the tongue spoken in England, the population, the social and political condition of the country.

7. Mention the great events of the thirteenth century that affected more directly the intellectual progress of England.

8. Which were the names, on the Continent and in England, most distinguished for abstract speculation in the thirteenth century?

9. How is it accounted for that in England almost all the historical writings of that period were in Latin?—who were the principal writers?

10. Give an account of the origin and cultivation of Latin Rhyming Verse.

11. Give some account of the Latin tales of the Middle Ages, of their nature, probable origin, and the uses to which many of them were applied.

12. Give some account of the Fabliaux of the Trouvères and of the Chivalrous Romances.

13. Mention the principal changes observable in the language of England after its transition from Anglo-Saxon to Semi-Saxon.

# McGILL COLLEGE, MONTREAL.

## CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS, 1872.

### ANGLO-SAXON GRAMMAR.

SEPTEMBER 19TH :—AFTERNOON, 1 TO 5.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. In Anglo-Saxon how are the different declensions determined ?
2. How are the irregular nouns "mann", "sunn", "brother", declined ?
3. Mention the different ways of forming secondary nouns
4. Give concrete examples to show the two forms of the declension of adjectives
5. In the Anglo-Saxon how was the comparison of adjective affected
6. Give the irregular comparisons of the adjectives "eald", "feor", "geong", "god", "heah", "lytel", "yfel."
7. Which are the personal pronouns and their plurals ?
8. Which are the relative and interrogative pronouns ?
9. Give an account of the origin and formation of the Anglo-Saxon numerals to twentig inclusive.
10. Give a concrete example of the first conjugation of a verb of the simple order, in all its tenses and modes.
11. How are Anglo-Saxon adverbs compared ?

# McGILL COLLEGE, MONTREAL.

## SECOND YEAR EXHIBITIONS, 1872.

### FRENCH.

SEPTEMBER 19TH:—MORNING, 9 TO 12.

*Examiner*,.....P. J. DAREY, M.A., B.C L.

1. Translate into English:—

Ah! mon père, prenez des sentiments un peu plus humains, je vous prie, et n'allez point pousser les choses dans les dernières violences du pouvoir paternel. Ne vous laissez point entraîner aux premiers mouvements de votre passion, et donnez-vous le temps de considérer ce que vous voulez faire. Prenez la peine de mieux voir celui dont vous vous offensez. Il est tout autre que vos yeux ne le jugent; et vous trouverez moins étrange que je me sois donnée à lui, lorsque vous saurez que sans lui vous ne m'auriez plus il y a longtemps. Oui, mon père, c'est lui qui me sauva de ce grand péril que vous savez que je courus dans l'eau, et à qui vous devez la vie de cette jeune fille dont.....

MOLIÈRE, *l'Avare*, A. V., Sc. V.

II. Oui; mais il veut avoir trop d'esprit, dont j'enrage.
Il est guindé sans cesse, et dans tous ses propos
On voit qu'il se travaille à dire de bons mots.
Depuis que dans la tête il s'est mis d'être habile,
Rien ne touche son goût tant il est difficile.
Il veut voir des défauts à tout ce qu'on écrit,
Il pense que louer n'est pas d'un bel esprit;
Que c'est être savant que trouver à redire;
Qu'il n'appartient qu'aux sots d'admirer et de rire:
Et qu'en n'approuvant rien des ouvrages du temps,
Il se met au-dessus de tous les autres gens.

MOLIÈRE, *le Misanthrope*, A. II., Sc., V.

III. Translate into French:—

The mildness of Sir Isaac Newton's temper through the course of his life commanded admiration from all who knew him; but in no one instance, perhaps, more than the following. Sir Isaac had a favorite dog, which he called Diamond, and being one day called out of his study into the next room, Diamond was left behind. When Sir Isaac returned, having been absent but a few minutes, he had the mortification to find that Diamond having thrown down a lighted candle among some papers, the nearly finished labour of many years was in flames, and almost consumed to ashes. This loss, as Sir Isaac Newton was then very far advanced in years, was irretrievable; yet, without once striking the dog, he only rebuke him with the exclamation: "O! Diamond! Diamond! thou little knowest the mischief thou hast done."

IV. Explain when *quelque* is written in one word invariable—in one word variable—and in two words and *quel* variable. Give an example of each case.

V. State the difference between the verbs *fonder* and *fondre*, and write, in full, the primitive tenses of those verbs.

# McGILL COLLEGE, MONTREAL.

## CLASSICAL MODERN LANGUAGES SCHOLARSHIPS, 1872.

### FRENCH.

SEPTEMBER 19TH :—MORNING, 9 TO 12.

*Examiner*,.....P. J. DAREY, M.A., B.C.L.

1. Translate into French :—

The human body is a living machine, constructed for the use of a spiritual being. It is adapted to the elements amid which it dwells, but, while in its own substance partaking of their nature, it is nevertheless so constituted as to be actuated by powers, the mode of whose existence and operation cannot be explained by reference to the known laws of matter. Every organ of the body is developed according to a specific plan, and for a specific purpose; yet, though perfect in itself as an apparatus adapted to a particular end, it holds relation to other organs and their functions. All the body united by one life, subserves one soul.

MOORE, *Body and Mind.*

2. Which of these three tragedies, Britannicus, Andromaque, and Iphigénie, has Racine taken from the Greek ? What sublime virtues are represented respectively in each of those plays? And what vices are also described, in each respectivley ?

3. Translate into English :—

Ah! fallait-il en en croire une amante insensée?
Ne devais-tu pas lire au fond de ma pensée?
Et ne voyais-tu pas, dans mes emportements,
Que mon cœur démentait ma bouche à tous moments?
Quand je l'aurais voulu, fallait-il y souscrire?
N'as-tu pas dû cent fois te le faire redire?
Toi-même avant le coup me venir consulter,
Y revenir encore, ou plutôt m'éviter?
Que ne me laissais-tu le soin de ma vengeance?
Qui t'amène en des lieux où l'on fuit ta présence?
Voilà de ton amour le détestable fruit:
Tu m'apportais, cruel, le malheur qui suit.

RACINE, *Andromaque A. V. sc. iii.*

4. Why are the participles invariable in the following sentences : Je lui aurais fait tous les vers qu'il aurait *voulu*. Sa vertu était aussi pure qu'on l'avait *cru* jusqu' alors. Toutes les années qu'il a *régné*.

5. Correct this sentence: *La charité chrétienne nous commande d'aimer et de prêter assistance à notre prochain.* State the rule which relates to this case.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH:—MORNING, 9 TO 12.

GREEK.—XENOPHON.—HELLENICS, BOOK I.

*Examiner*, . . . . . REV. GEORGE CORNISH, LL.D.

### FIRST YEAR.

1. Translate:—

(A) Ὁ δὲ Καλλικρατίδας ἀκούων τὴν βοήθειαν ἤδη ἐν Σάμῳ οὖσαν, αὐτοῦ μὲν κατέλιπε πεντήκοντα ναῦς καὶ ἄρχοντα Ἐτεόνικον, ταῖς δὲ εἴκοσι καὶ ἑκατὸν ἀναχθεὶς ἐδειπνοποιεῖτο τῆς Λέσβου ἐπὶ τῇ Μαλέᾳ ἄκρᾳ ἀντίον τῆς Μυτιλήνης. τῇ δ' αὐτῇ ἡμέρᾳ ἔτυχον καὶ οἱ Ἀθηναῖοι δειπνοποιούμενοι ἐν ταῖς Ἀργινούσαις· αὗται δ' εἰσὶν ἀντίον τῆς Λέσβου. τῆς δὲ νυκτὸς ἰδὼν τὰ πυρά, καί τινων αὐτῷ ἐξαγγειλάντων ὅτι οἱ Ἀθηναῖοι εἶεν, ἀνήγετο περὶ μέσας νύκτας, ὡς ἐξαπιναίως προσπέσοι· ὕδωρ δ' ἐπιγενόμενον πολὺ καὶ βρονταὶ διεκώλυσαν τὴν ἀναγωγήν. ἐπεὶ δὲ ἀνέσχεν, ἅμα τῇ ἡμέρᾳ ἔπλει ἐπὶ τὰς Ἀργινούσας. οἱ δ' Ἀθηναῖοι ἀντανήγοντο εἰς τὸ πέλαγος τῷ εὐωνύμῳ, παρατεταγμένοι ὧδε. Ἀριστοκράτης μὲν τὸ εὐώνυμον ἔχων ἡγεῖτο πεντεκαίδεκα ναυσί, μετὰ δὲ ταῦτα Διομέδων ἑτέραις πεντεκαίδεκα· ἐπετέτακτο δὲ Ἀριστοκράτει μὲν Περικλῆς, Διομέδοντι δὲ Ἐρασινίδης· παρὰ δὲ Διομέδοντα οἱ Σάμιοι δέκα ναυσὶν ἐπὶ μιᾶς τεταγμένοι. ἐστρατήγει δὲ αὐτῶν Σάμιος ὀνόματι Ἵππεύς· ἐχόμεναι δ' αἱ τῶν ταξιάρχων δέκα, καὶ αὗται ἐπὶ μιᾶς· ἐπὶ δὲ ταύταις αἱ τῶν ναυάρχων τρεῖς, καὶ εἴ τινες ἄλλαι ἦσαν συμμαχίδες.

(B) Ἀλκιβιάδης δὲ βουλόμενος μετὰ τῶν στρατιωτῶν ἀποπλεῖν οἰκαδε, ἀνήχθη εὐθὺς ἐπὶ Σάμον· ἐκεῖθεν δὲ λαβὼν τῶν νεῶν εἴκοσιν ἔπλευσε τῆς Καρίας εἰς τὸν Κεραμικὸν κόλπον. ἐκεῖθεν δὲ σῦλλέξας ἑκατὸν τάλαντα ἦκεν εἰς τὴν Σάμον. Θρασύβουλος δὲ σὺν τριάκοντα ναυσὶν ἐπὶ Θράκης ᾠχετο, ἐκεῖ δὲ τά τε ἄλλα χωρία τὰ πρὸς Λακεδαιμονίους μεθεστηκότα κατεστρέψατο καὶ Θάσον, ἐχουσαν κακῶς ὑπό τε τῶν πολέμων καὶ στάσεων καὶ λιμοῦ. Θράσυλλος δὲ σὺν τῇ ἄλλῃ στρατιᾷ εἰς Ἀθήνας κατέπλευσε· πρὶν δὲ ἥκειν αὐτὸν οἱ Ἀθηναῖοι στρατηγοὺς εἵλοντο Ἀλκιβιάδην μὲν φεύγοντα καὶ Θρασύβουλον ἀπόντα, Κόνωνα δὲ τρίτον ἐκ τῶν οἴκοθεν.

(C) οἱ δ' ἄλλοι στρατηγοὶ εἰς τὸν Ἑλλήσποντον ᾤχοντο. παρὰ δὲ Ἱπποκράτους τοῦ Μινδάρου ἐπιστολέως εἰς Λακεδαίμονα γράμματα πεμφθέντα ἑάλω εἰς Ἀθήνας λέγοντα τάδε· Ἔρρει τὰ κᾶλα. Μίνδαρος ἀπεσσύα. πεινῶντι τὤνδρες. ἀπορίομες τί χρὴ δρᾶν. Φαρνάβαζος δὲ παντὶ τῷ τῶν Πελοποννησίων στρατεύματι καὶ τοῖς συμμάχοις παρακελευσάμενος μὴ ἀθυμεῖν ἕνεκα ξύλων, ὡς ὄντων πολλῶν ἐν τῇ βασιλέως, ἕως ἂν τὰ σώματα σᾷ ᾖ, ἱμάτιόν τ' ἔδωκεν ἑκάστῳ καὶ ἐφόδιον δυοῖν μηνοῖν, καὶ ὁπλίσας τοὺς ναύτας φύλακας κατέστησε τῆς ἑαυτοῦ παραθαλαττίας γῆς.

2. (*a*) In ext. (A) explain the use of the cases, severally, in:—*τῇ αὐτῇ ἡμέρᾳ. τῆς νυκτός. τινων ἐξαγγειλάντων. μέσας νύκτας. τῷ εὐωνύμῳ.* (*b*) Give the exact import of *ἀνήγετο* and parse it. *ἀνέσχεν*, —What is the subject? Illustrate from Latin and English. (*c*) Turn the Doric forms of ext. (C) into Attic.

3. Explain the following constructions:—(*a*) *ἵππων εὐπορήσαντες.* (*b*) *τοῦ χωρίου ἐπιμελεῖσθαι.* (*c*) *τοῖς ὅρκοις οὐκ ἐτύγχανε παρών.* (*d*) *τριάκοντα μνᾶς ἑκάστῃ τῇ νηὶ τοῦ μηνὸς διδόναι.* (*e*) *ὡς ἐφθη κατακωλυθείς.*

4. Parse carefully the following:—*ἀπῆραν, πεπονθέναι, ἐροῦντα, ἀφεῖσαν, προπιών, ἐπεσταλκέναι, ἠσεβήκει, ἀνήχθη, πεπραγότες εἶεν, ἀπεσώθη.*

5. Explain the derivation of the following:—*ναῦς, δείλης, τριήρης, προνομή, ξυνωρίς, ἀκράτειαν, ἀτέλειαν, Ἀργινοῦσαι.*

6. Write short explanatory rules on:—(1) *ἐν ἡλικίᾳ.* (2) *διέκπλους.* (3) *τὰ παραῤῥύματα.* (4) *μνᾶ.* (5) *ὀβολός.* (6) *δραχμή.* (7) *περίοικοι.* (8) *ἐπιβάτης.*

7. State the difference in meaning between:— (*a*) *ἀγγεῖλαι* and *ἀγγείλαι.* (*b*) *ἐξηγεῖσθαι τινός* and *ἐξηγεῖσθαι τινί.* (*c*) *ἀποδιδόναι* and *ἀποδίδοσθαι.* (*d*) *ὁ νεὼς* and *τῆς νεώς.* (*e*) *τὰ πυρὰ* and *ἡ πυρά.* (*f*) *ἐπὶ Κύρου, ἐπὶ Κύρῳ,* and *ἐπὶ Κῦρον.*

8. Give the geographical positions, severally, of the following places, with the modern names of any:—Malea, Agrigentum, Delphinium, Decelea, Gaurium, Chrysopolis, Byzantium, Phocaea, Heralea, Coryphasium.

9. (*a*) Decline *τίς, οὗ, θρίξ, χείρ, φῶς, σαφής, πᾶς, μέγας.* (*b*) Compare:—*κοῦφος, πρέσβυς, ἡδύς, ταχέως, ἄνω.* (*c*) Write down the *Fut.* and *Aor. Ind.* of:—*τίκτω, ἄχθομαι, φεύγω, τέμνω, φέρω.*

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH:—MORNING, 9 TO 12.

GREEK.—ISOCRATES.—THE PANEGYRICUS.

### SECOND YEAR.

*Examiner*, . . . . . REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Τῶν τοίνυν τὰς πανηγύρεις καταστησάντων δικαίως ἐπαινουμένων, ὅτι τοιοῦτον ἔθος ἡμῖν παρέδοσαν ὥστε σπεισαμένους καὶ τὰς ἔχθρας τὰς ἐνεστηκυίας διαλυσαμένους συνελθεῖν εἰς ταὐτὸν, καὶ μετὰ ταυτ' εὐχὰς καὶ θυσίας κοινὰς ποιησαμένους ἀναμνησθῆναι μὲν τῆς συγγενείας τῆς πρὸς ἀλλήλους ὑπαρχούσης, εὐμενεστέρως δ' εἰς τὸν λοιπὸν χρόνον διατεθῆναι πρὸς ἡμᾶς αὐτοὺς, καὶ τάς τε παλαιὰς ξενίας ἀνανεώσασθαι καὶ καινὰς ἑτέρας ποιήσασθαι, καὶ μήτε τοῖς ἰδιώταις μήτε τοῖς διενεγκοῦσι τὴν φύσιν ἀργὸν εἶναι τὴν διατριβὴν, ἀλλ' ἀθροισθέντων τῶν Ἑλλήνων ἐγγενέσθαι τοῖς μὲν ἐπιδείξασθαι τὰς αὑτῶν εὐεξίας, τοῖς δὲ θεάσασθαι τούτους πρὸς ἀλλήλους ἀγωνιζομένους, καὶ μηδετέρους ἀθύμως διάγειν, ἀλλ' ἑκατέρους ἔχειν, ἐφ' οἷς φιλοτιμηθῶσιν, οἱ μὲν οταν ἰδωσι τοὺς ἀθλητὰς αὐτῶν ἕνεκα πονοῦντας, οἱ δ' ὅταν ἐνθυμηθῶσιν, ὅτι πάντες ἐπὶ τὴν σφετέραν θεωρίαν ἥκουσι,—τοσούτων τοίνυν ἀγαθῶν διὰ τὰς συνόδους ἡμῖν γιγνομένων οὐδ' ἐν τούτοις ἡ πόλις ἡμῶν ἀπελείφθη.

(B) Καίτοι μελλούσης στρατείας ἐπὶ τοὺς βαρβάρους ἔσεσθαι τίνας χρὴ τὴν ἡγεμονίαν ἔχειν; οὐ τοὺς εν τῷ προτέρῳ πολέμῳ μάλιστ' εὐδοκιμήσαντας, καὶ πολλάκις μὲν ἰδίᾳ προκινδυνεύσαντας, ἐν δὲ τοῖς κοινοῖς τῶν ἀγώνων ἀριστείων ἀξιωθέντας; οὐ τοὺς τὴν αὐτῶν ἐκλιπόντας ὑπὲρ τῆς τῶν ἄλλων σωτηρίας, καὶ τό τε παλαιὸν οἰκιστὰς τῶν πλείστων πόλεων γενομένους, καὶ πάλιτ αὐτὰς ἐκ τῶν μεγίστων συμφορῶν διασώσαντας; πῶς δ' ουκ ἂν δεινὰ πάθοιμεν, εἰτῶν κακῶν πλεῖστον μέρος μετασχόντες ἐν ταῖς τιμαῖς ἔλαττον ἔχειν ἀξιωθεῖμὲν κα τότε προταχθέντες ὑπὲρ ἁπάντων νῦν ἑτέροις ἀκολουθεῖν ἀνανκασθεῖμεν.

(C) Ἔχοντες γὰρ χώραν μὲν ὡς πρὸς τὸ πλῆθος τῶν πολιτῶν ἐλαχίστην ἀρχὴν δὲ μεγίστην, κεκτημένοι τριήρεις διπλασίας μὲν ἢ σύμπαντες, δυναμένα, δὲ πρὸς δὶς τοσαύτας κινδυνεύειν, ὑποκειμένης τῆς Εὐβοίας ὑπὸ τὴν Ἀττικὴν, ἡ καὶ πρὸς τὴν ἀρχὴν τὴν τῆς θαλάττης εὐφυῶς εἶχε καὶ τὴν ἄλλην ἀρετὴν ἁπασῶν τῶν νήσων διέφερε, κρατοῦντες αὐτῆς μᾶλλον ἢ τῆς ἡμετέρας αὐτῶν, καὶ πρὸς τούτοις εἰδότες καὶ τῶν Ἑλλήνων καὶ τῶν βαρβάρων τούτους μάλιστ' εὐδοκιμοῦντας ὅσοι τοὺς ὁμόρους ἀναστάτους ποιήσαντες ἄφθονον καὶ ῥᾴθυμον αὑτοῖς κατεστήσαντο τὸν βίον, ὅμως οὐδὲν τούτων ἡμᾶς ἐπῆρε περὶ τοὺς ἔχοντας τὴν νῆσον ἐξαμαρτεῖν, ἀλλὰ μόνοι δὴ τῶν μελλήν δύναμιν λαβόντων περιείδομεν ἡμᾶς αὐτοὺς ἀπορωτέρως ζῶντας τῶν δουλεύειν αἰτίαν ἐχόντων.

2. In the above extracts construe :—(*a*) τοῖς διενεγκοῦσι τὴν φύσιν. (*b*) ἀργὸν εἶναι τὴν διατριβήν. (*c*) ἐν κοινοῖς τῶν ἀγώνων ἀριστείων ἀξιωθέντας. (*d*) εὐφυῶς εἶχε. (*e*) καὶ τὴν ἄλλην ἀρετήν.

3. Parse the following :—ἐπῆρε, πλείω, ἐπιτιμῶεν, εἰάθησαν, ὀφθῆναι, ἀπήντων, πεμφθεῖσιν, ὕπεισι, ὑπολειφθεῖσαι, θηριωδῶς. Write down the root of each.

4. Explain the meaning of: — (1) ἐξ ὑπογυίου. (2) τὸν βάρβαρον. (3) αὐτόχθενες. (4) ἀνάστατος. (5) ἐκ τῶν ἱκετειῶν. (6) μετοικεῖν. (7) κληρουχίαι. (8) ἑβδομήκοντ' ἔτη.

5. Derive the following and give cognate forms of any you know in Latin and English :—μεχρι, ἀκέραιος, ὑπερηφανίας, φιλονικία, ἀστυ, ἀνυποστάτων, ἐγκλήματα, ἀρχηγοί, ἐπήλυδας, ἀργόν.

6. Distinguish between :—(*a*) σημεῖον, πίστεις, and τεκμήριον. (*b*) παλαιὸς and ἀρχαῖος. (*c*) θεοφιλῶς and φιλοθέως. (*d*) ἡ ἀριστεία and τὰ ἀριστεῖα. (*e*) Ἄργος and ἀργός. (*f*) κεῖνος and κεινός. (*g*) οἱ μὲν and οἱ δέ.

7. (*a*) Decline :—νεανίας, νεώς, λιμήν, δελφίς, ἦπαρ. (*b*) Compare :—μέλας, πένης, ταχύς, ἐγγύς, κάτω. (*c*) Write down the *Fut.* and *Aor. Ind.* of :—πάσχω, πήγνυμι, θνήσκω, λανθάνω, φημί, ἵημι.

8. Name and define the uses, severally, of the Moods.

9. Write a sketch of the life of Isocrates, with dates, and name the leading events that occurred in the history of Greece during his life-time.

10. Name the four great Hellenic πανηγύρεις with the places and times of their celebration, and the deities in whose honour they were held.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

MONDAY, DECEMBER 16TH:—MORNING, 9 TO 12.

GREEK.—DEMOSTHENES.—THE OLYNTHIACS.

### THIRD YEAR.

*Examiner*, . . . . . REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Ὁ μὲν οὖν παρὼν καιρός, ὦ ἄνδρες Ἀθηναῖοι, μόνον οὐχὶ λέγει φωνὴν ἀφιείς, ὅτι τῶν πραγμάτων ὑμῖν ἐκείνων αὐτοῖς ἀντιληπτέον ἐστίν, εἴπερ ὑπὲρ σωτηρίας αὐτῶν φροντίζετε· ἡμεῖς δ' οὐκ οἶδ' ὁντινά μοι δοκοῦμεν ἔχειν τρόπον πρὸς αὐτά. ἐστι δὴ τά γ' ἐμοὶ δοκοῦντα, ψηφίσασθαι μὲν ἤδη τὴν βοήθειαν, καὶ παρασκευάσασθαι τὴν ταχίστην, ὅπως ἐνθένδε βοηθήσετε, καὶ μὴ πάθητε ταὐτόν, ὅπερ καὶ πρότερον, πρεσβείαν δὲ πέμπειν, ἥτις ταῦτ' ἐρεῖ καὶ παρέσται τοῖς πράγμασιν· ὡς ἐστι μάλιστα τοῦτο δέος, μὴ πανοῦργος ὢν καὶ δεινὸς ἄνθρωπος πράγμασι χρῆσθαι, τὰ μὲν εἰκων, ἡνίκ' ἂν τύχῃ, τὰ δ' ἀπειλῶν, (ἀξιόπιστος δ' ἂν εἰκότως φαίνοιτο,) τὰ δ' ἡμᾶς διαβάλλων καὶ τὴν ἀπουσίαν τὴν ἡμετέραν, τρέψηται καὶ παρασπάσηταί τι τῶν ὅλων πραγμάτων.

(B) Εἰ δέ τις ὑμῶν, ὦ ἄνδρες Ἀθηναῖοι, τὸν Φίλιππον εὐτυχοῦντα ὁρῶν, ταύτῃ φοβερὸν προσπολεμῆσαι νομίζει, σώφρονος μὲν ἀνθρώπου λογισμῷ χρῆται. μεγάλη γὰρ ῥοπή, μᾶλλον δὲ τὸ ὅλον, ἡ τύχη παρὰ πάντ' ἐστὶ τὰ τῶν ἀνθρώπων πράγματα· οὐ μὴν ἀλλ' ἐγωγε, εἴ τις αἵρεσίν μοι δοίη, τὴν τῆς ἡμετέρας πόλεως τύχην ἂν ἑλοίμην, ἐθελόντων ἃ προῄκει ποιεῖν ὑμῶν αὐτῶν καὶ κατὰ μικρόν, ἢ τὴν ἐκείνου· πολὺ γὰρ πλείους ἀφορμὰς εἰς τὸ τὴν παρὰ τῶν θεῶν εὔνοιαν ἔχειν ὁρῶ ἡμῖν ἐνούσας, ἢ ἐκείνῳ. ἀλλ', οἶμαι, καθήμεθα, οὐδὲν ποιοῦντες· οὐκ ἐνὶ δ' αὐτὸν ἀργοῦντα οὐδὲ τοῖς φίλοις ἐπιτάττειν ὑπὲρ αὐτοῦ τι ποιεῖν, μή τί γε δὴ τοῖς θεοῖς. οὐ δὴ θαυμαστόν ἐστιν, εἰ στρατευόμενος καὶ πονῶν ἐκεῖνος αὐτός, καὶ παρὼν ἐφ' ἅπασι, καὶ μηδένα καιρὸν μηδ' ὥραν παραλείπων, ἡμῶν μελλόντων καὶ ψηφιζομένων καὶ πυνθανομένων περιγίγνεται.

(C) Ἀλλ' ὅτι μὲν δὴ δεῖ βοηθεῖν, εἴποι τις ἂν, πάντες ἐγνώκαμεν, καὶ βοηθήσομεν· τὸ δὲ ὅπως, τοῦτο λέγε. μὴ τοίνυν, ὦ ἄνδρες Ἀθηναῖοι, θαυμάσητε, ἂν παράδοξον εἴπω τι τοῖς πολλοῖς. νομοθέτας καθίσατε. ἐν δὲ τούτοις τοῖς νομοθέταις μὴ θῆσθε νόμον μηδένα, (εἰσὶ γὰρ ἱκανοὶ ὑμῖν,) ἀλλὰ τοὺς εἰς τὸ παρὸν βλάπτοντας ὑμᾶς λύσατε. λέγω δὲ τοὺς περὶ τῶν θεωρικῶν, σαφῶς οὑτωσί, κἀὶ τοὺς περὶ τῶν στρατευομένων ἐνίους· ὧν οἱ μὲν τὰ στρατιωτικὰ τοῖς οἴκοι μένουσι διανέμουσι θεωρικά, οἱ δὲ τοὺς ἀτακτοῦντας ἀθῴους καθιστᾶσιν· εἶτα καὶ τοὺς τὰ δέοντα ποιεῖν βουλομένους ἀθυμοτέρους ποιοῦσιν. ἐπειδὰν δὲ ταῦτα λύσητε καὶ τὴν τοῦ τὰ βέλτιστα λέγειν ὁδὸν παράσχητε ἀσφαλῆ, τηνικαῦτα τὸν γράψοντα, ἃ πάντες ἴστε ὅτι συμφέρει, ζητεῖτε. πρὶν δὲ ταῦτα πρᾶξαι, μὴ σκοπεῖτε, τίς εἰπὼν τὰ βέλτιστα ὑπὲρ ὑμῶν, ὑφ' ὑμῶν ἀπολέσθαι βουλήσεται.

2. Explain the construction of:—(*a*) *ὄντινα ἔχειν τρόπον.* (*b*) *φοβερὸν προσπολεμῆσαι.* (*c*) *μή τί γε δὴ τοῖς θεοῖς.* (*d*) *ἡμῶν μελλόντων.* (*e*) *αὐτὸν ἀργοῦντα.*

3. Parse, pointing out the root of each:—*ἐσκεμμένος, ἐγνωκότας, ἀφεῖναι, ὑπηργμένων, πεφηνέναι, φήσαι, ηὐξήθη, προήρηται, συμβῇ, κομιεῖσθε.*

4. Explain the metaphors in:—*ὑποστείλασθαι, πεφενάκικεν, ἀνεχαίτισε, ἠνθησεν * * φωρᾶται * * καταρρεῖ, συγκεκροτημένοι.*

5. Give the force of such expressions as the following, supplying the ellipsis where any occurs:—*εἴ πὲρ πότε. οὐ μὴν ἀλλά. δήπου. καὶ γέ. εἰς μακράν. καὶ δή. ἄρα γέ.*

6. Explain what is meant by the following:—(1) *τὸ βῆμα.* (2) *πάντας εἰσφέρειν.* (3) *ὦ τᾶν.* (4) *τοὺς δ' ἐν ἡλικίᾳ.* (5) *εὔθυναι.* (6) *μίμους γελοίων.* (7) *τὰ μυστήρια.* (8) *προβούλευμα.* (9) *ψήφισμα.*

7. Distinguish between:—*βούλομαι* and *ἐθέλω. ἐκπολεμέω* and *ἐκπολεμόω. ἀκρᾰσίαν* and *ἀκρᾱσίαν. λήμματα* and *ἄθλα. κᾰτα* and *κατά. καὶ εἰ* and *εἰ καί. ἔνι, ἐνί,* and *ἐνί.*

8. (*a*) How is the *Futurum Exactum* formed in the three voices, severally? (*b*) State the difference between *ὅπως σώσομεν* and *ὅπως σώσωμεν.* (*c*) If the conditional clause has *ἐάν*, what is the nature of the hypothesis, and what moods are used in the conditional and consequent clauses, respectively.

9. (*a*) *τάλαντα ἑξήκοντα.*—Give the amount in our currency. (*b*) *βοηδρομίων.*—What month? (*c*) When and where were the Olynthiacs delivered?

10. A short account of the reign of Philip, with dates. What was the end of Demosthenes?

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH :—AFTERNOON, 2 TO 5.

LATIN.—VIRGIL.—ÆNEID, BOOK VI.

## FIRST YEAR.

*Examiner*, .....REV. GEORGE CORNISH, LL.D.

1. Translate :—

(A)

At, Phoebi nondum patiens, immanis in antro,
Bacchatur vates, magnum si pectore possit
Excussisse deum : tanto magis ille fatigat
Os rabidum, fera corda domans, fingitque premendo.
Ostia iamque domus patuere ingentia centum
Sponte sua, vatisque ferunt responsa per auras,
O tandem magnis pelagi defuncte periclis!
Sed terræ graviora manent. In regna Lavini
Dardanidae venient; mitte hanc de pectore curam;
Sed non et venisse volent. Bella, horrida bella,
Et Thybrim multo spumantem sanguine cerno.
Non Simois tibi, nec Xanthus, nec Dorica castra
Defuerint. Alius Latio iam partus Achilles,
Natus et ipse dea. Nec Teucris addita Iuno
Usquam aberit; quum tu supplex in rebus egenis
Quas gentis Italum aut quas non oraveris urbis!
Caussa mali tanti coniunx iterum, hospita Teucris,
Externique iterum thalami.

Ibant obscuri sola sub nocte per umbram,
Perque domos Ditis vacuas, et inania regna.
Quale per incertam lunam sub luce maligna
Est iter in silvis : ubi coelum condidit umbra
Iuppitur, et rebus nox abstulit atra colorem.
Vestibulum ante ipsum primisque in faucibus Orci
Luctus et ultrices posuere cubilia Curae;
Pallantesque habitant Morbi, tristisque Senectus
Et Metus, et malesuada Fames, ac turpis Egestas;
Terribiles visu formae : Letumque, Labosque;
Tum consanguineus Leti Sopor, et mala mentis
Gaudia, mortiferumque adverso in limine Bellum,
Ferreique Eumenidum thalami, et Discordia demens,
Vipereum crinem vittis innexa cruentis.

(C)

Proximus ille Procas, Troianae gloria gentis,
Et Capys, et Numitor, et qui te nomine reddet
Silvius Aeneas, pariter pietate vel armis
Egregius, si umquam regnandam acceperit Albam.
Qui iuvenes quantas ostentant, adspice, vires!
At, qui umbrata gerunt civili tempora quercu,
Hi tibi Nomentum, et Gabios, urbemque Fidenam,
Hi Collatinas inponent montibus arces,
(Laude pudicitiae celebres, addentque superbos)
Pometios, Castrumque Inui, Bolamque, Coramque.
Haec tum nomina erunt, nunc sunt sine nomine terrae
Quin et avo comitem sese Mavortius addet
Romulus: Assaraci quem sanguinis Ilia mater
Educet. Viden' ut geminae stant vertice cristae,
Et pater ipse suo superum iam signat honore?

2. Explain carefully the construction of the following, in the above extracts: (*a*) periclis. (*b*) terrae. (*c*) visu. (*d*) pietate vel armis. (*e*) Assaraci sanguinis. (*f*) superum. al. "superûm."—how does this reading affect the interpretation of the verse?

3. (*a*) Write short explanatory notes on:—(1) Mavortius. (2) Ilia. (3) Berecyntia mater. (4) Caelifer Atlas. (5) Quis ille sacra ferens? (6) Centumgeminus Briareus. (7) Scyllae biformes. (*b*) Define the geographical situation of:—Cumae, Minoia regna, Massylum gentes, Portus Velinos, Elidis urbem, Maeotia tellus.

4. Parse the following words:—fixerit, proxumus, edūcet, edŭcet, postuma, aurai, laetere, incubuere, cornipedum, attulerint.

5. Give the composition and meaning of:—protinus, bidentes, hactenus, inmanis, ambages, brumali, maligna, adversus, cognomine, exsomnis, securus, incana.

6. How do you explain the following:—(1) sortem *animi* miseratus. (2) Ancora *fundabat* navis. (3) major *videri*. (4) non *inferiora* secutus. (5) *fuso* crateres *olivo*. (6) torva *tuentem animum*.

7. (*a*) Write down the name and scale of the metre used by Virgil. (*b*) Scan the first six vss. of ext. (C). (*c*) Define the terms *Elision*, *Hiatus*, and *Caesura*.

8. (*a*) Decline:—clavis, comes, senex, crater, idem, ambo. (*b*) Compare:—miser, vetus, similis, nequam, diu, male. (*c*) What cases do the following severally govern?—apud, coram, pro, ultra, tenus, sub, pudet, decet.

9. (*a*) Illustrate the construction in the Passive of verbs that take a double accusative in the Active. (*b*) Illustrate the usage of the Cognate Accusative, and of the Partitive Genitive. (*c*) How do you express the local relations *where*, *whither*, and *whence*?

Translate into Latin:—

10. (1) The soldiers were men of great valour, but they were defeated in battle. (2) He returned home from the country at eventide and slept all night. (3) The general entered the city with a large number of soldiers and set it on fire. (4) The brother and sister were dutiful to their parents,

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH:—AFTERNOON, 2 TO 5.

LATIN:—HORACE.—EPISTLES, BOOK I.

## SECOND YEAR.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A)

Sincerum est nisi vas, quodcunque infundis, acescit.
Sperne voluptates; nocet empta dolore voluptas.
Semper avarus eget; certum voto pete finem.
Invidus alterius macrescit rebus opimis;
Invidia Siculi non invenere tyranni
Majus tormentum. Qui non moderabitur iræ,
Infectum volet esse, dolor quod suaserit et mens,
Dum pœnas odio per vim festinat inulto.
Ira furor brevis est: animum rege, qui nisi paret,
Imperat; hunc frenis, hunc tu compesce catena.
Fingit equum tenera docilem cervice magister
Ire viam, qua monstret eques; venaticus ex quo
Tempore cervinam pellem latravit in aula,
Militat in silvis catulus. Nunc adbibe puro
Pectore verba, puer, nunc te melioribus offer.
Quo semel est imbuta recens servabit odorem
Testa diu. Quod si cessas aut strenuus anteis,
Nec tardum opperior nec præcedentibus insto.

(B)

Cervus equum pugna melior communibus herbis
Pellebat, donec minor in certamine longo
Imploravit opes hominis frenumque recepit;
Sed postquam victor violens discessit ab hoste,
Non equitem dorso, non frenum depulit ore.
Sic, qui pauperiem veritus potiore metallis
Libertate caret, dominum vehit improbus atque
Serviet æternum, quia parvo nesciet uti.
Cui non conveniet sua res, ut calceus olim,
Si pede major erit, subvertet, si minor, uret.
Lætus sorte tua vives sapienter, Aristi;
Nec me dimittes incastigatum, ubi plura
Cogere quam satis est ac non cessare videbor.
Imperat aut servit collecta pecunia cuique,
Tortum digna sequi potius quam ducere funem.
Hæc tibi dictabam post fanum putre Vacunæ,
Excepto quod non simul esses, cetera lætus.

C)

Virtus est medium vitiorumet utrinque reductum.
Alter in obsequium plus æquo pronus et imi
Derisor lecti sic nutum divitis horret,
Sic iterat voces et verba cadentia tollit,
Ut puerum sævo credas dictata magistro
Reddere vel partes mimumractare secundas.
Alter rixatur de lana sæpe caprina,
Porpugnet nugis armatus: "Scilicet, ut non
Sit mihi prima fides, et vere quod placet ut non
Acriter elatrem?" Pretium ætas altera sordet.
Ambigitur quid enim? Castor sciat an Dolichos plus;
Brundisium Minuci melius via ducat an Appi.

2. Give an account of the life and writings of Horace. Name the eminent men in literature and politics that were his contemporaries.

3. Explain carefully the grammatical construction of:—(*a*) Pretium altera ætas sordet. (*b*) Equum tenera docilem cervice. (*c*) Mutat quadrata rotundis. (*d*) Magna coronari Olympia. (*e*) Jus Cæsaris accepit genibus minor. (*f*) Potiore metallis libertate caret.

4. Write short explanatory notes (grammatical) on the following:—(*a*) Fruges *consumere* nati. (*b*) Divitias *dedérunt*. (*c*) Si bene * * vivit, *ucet*, eamus, etc. (*d*) Reddes *dulce loqui*. (*e*) Scribe *tui gregis*. (*f*) Liber *mihi* non erit unquam. (*g*) Domini *deduxit* febres.

5. Janus summus * * *perdocet*. Dolor quod suaserit *et mens*. *Vulpecula* rimam repserat —What other readings are given for these by the MSS. or Edd. of Horace?

6. Explain briefly the following allusions:—(*a*)—(1) Lynceus. (2) Janus summus ab imo. (3) Alcinoi juventus. (4) Palatinus Apollo. (5) Cibyratica negotia. (6) Cærite cera. (7) Sidonio ostro, Aquinatem fucum. (8) Vacunæ. (*b*)—(1) Imi derisor lecti. (2) Partes tractare secundas. (3) Dictata magistro reddere. (4) Indictis Latinis. (5) Servum qui dictet mina. (6) Pluribus umbris. (7) Mille talenta.

7. Give the meaning and etymology of the following words used by Horace:—plăga, cœnacula, subucula, bruma, catellam, exsangue, senium, viatica, incolumi, retrorsum.

8. (*a*) Analyse and parse the following verbs:—Sodes, collisa, cessatum, torquebere, utere, ignovisse, contuderit, momorderit, arcesse. (*b*). Give the nominative singular and plura of the following nouns:—Pollice, nugis, periscelidem, focis, opis, fenore, porticibus, glomus.

9. Translate into Latin:—

Caius Marcius was a noble Romau, of the race of that worthy king Ancus Marcius; his father died when he was a child, but his mother, whose name was Volumnia, performed to him the part both of father and of mother; and Caius loved her exceedingly, and when he gained a glory by his feats of arms, it was his greatest joy that his mother should hear his praises; and when he was rewarded for his noble deeds, it was his greatest joy that his mother should see him receive his crown.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

MONDAY, DECEMBER 16TH:—AFTERNOON, 2 TO 5.

LATIN.—JUVENAL. SATIRES VIII. AND X.

## THIRD YEAR.

*Examiner*, .....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Exspectata diu tandem provincia quum te
Rectorem accipiet, pone iræ fræna modumque,
Pone et avaritiæ: miserere inopum *sociorum;*
Ossa vides regum vacuis exsucta medullis.
Respice, quid moneant leges, quid *curia* mandet,
Præmia quanta bonos manent, quam fulmine justo
Et Capito et Numitor ruerint, damnante Senatu,
Piratæ Cilicum. Sed quid damnatio confert,
Quum Pansa eripiat, quidquid tibi Natta reliquit?
Præconem, Chærippe, tuis circumspice pannis,
Jamque tace: furor est post omnia perdere naulum.
Non idem gemitus olim, neque vulnus erat par
Damnorum sociis florentibus et modo victis.
Plena domus tunc omnis, et ingens stabat acervus
Nummorum, Spartana *chlamys*, *conchylia* Coa,
Et cum *Parrhasii tabulis signisque Myronis*
*Phidiacum* vivebat *ebur;* nec non *Polycleti*
*Multus* ubique *labor;* raræ sine Mentore mensæ.
Inde Dolabella est atque hinc Antonius, inde
Sacrilegus Verres: referebant navibus altis
Occulta spolia et plures de pace triumphos.

(B) Expende Hannibalem; quot libras in duce summo
Invenies? hic est quem non capit Africa Mauro
Percussa Oceano Niloque admota tepenti,
Rursus ad Æthiopum populos altosque elephantos.
Additur imperiis Hispania: Pyrenæum
Transilit. Opposuit natura Alpemque nivemque:
Diducit scopulos et montem rumpit aceto.
Jam tenet Italiam: tamen ultra pergere tendit:
"Actum," inquit "nihil est, nisi Pœno milite portas
Frangimus et media vexillum pono Suburra."
O qualis facies et quali digna tabella,
Quum Gætula ducem portaret bellua luscum!
Exitus ergo quis est? O gloria! vincitur idem
Nempe et in exsilium præceps fugit, atque ibi magnus
Mirandusque cliens sedet ad prætoria regis,
Donec Bithyno libeat vigilare tyranno.
Finem animæ, quæ res humanas miscuit olim,
Non gladii, non saxa dabunt, nec tela; sed ille
Cannarum vindex et tanti sanguinis ultor,
Annulus.

(C) Incolumi Troja Priamus venisset ad umbras
Assaraci, magnis solemnibus, Hectore funus
Portante ac reliquis fratrum cervicibus, inter
Iliadum lacrimas, ut primos edere planctus
Cassandra inciperet scissaque Polyxena palla,
Si foret exstinctus diverso tempore, quo non
Cœperat audaces Paris ædificare carinas.
Longa dies igitur quid contulit? omnia vidit
Eversa et flammis Asiam ferroque cadentem.
Tunc miles tremulus posita tulit arma tiara
Et ruit ante aram summi Jovis, et vetulus bos,
Qui domini cultris tenue et miserabile collum
Præbet, ab ingrato jam fastiditus aratro.
Exitus ille utcunque hominis: sed torva canino
Latravit rictu, quæ post hunc vixerat, uxor.

2. (*a*) Give an account of Hannibal, and explain the allusions of ext. (B) pointing out what is exaggerated or legendary in them. (*b*) Explain what is meant by the words in Italics of ext. (A). (*c*) What is the subject of Sat. X.? By what English writers has it been imitated.

3. Give a short account of the other Roman Satirists besides Juvenal. At what period did Juvenal flourish?

4. Show the construction of:—(*a*) Vacuis exsucta medullis. (*b*) Tuis pannis. (*c*) Navibus altis. (*d*) Pœno milite. (*e*) Venisset. (*f*) Inciperet. (*g*) Vixerat.

5. Write explanatory notes on the following:—(*a*) Nanum. (*b*) Ventoso ub aggere. (*c*) Trunco Hermæ. (*d*) Urbem scænæ vacantem. (*e*) Idumaea portæ. (*f*) Pictæ Sarrana togæ. (*g*) Sportula.

6. Scan the following and note any peculiarities of metre:—

"Confisus periit admirandusque lacertis."
"Ergo supervacua aut perniciosa petuntur."
"Bellorum pompa animam exhalasset opimam."

7. Derive:—tomacula, ephebum, opimam, luscum, barbarus, sarcophago, pusilli, cachinni, naulum, stemmata.

8. (*a*) Distinguish between:—ambo and duo: nobilis and generosus: lūteus and lŭteus: facies and vultus: vindex and ultor. (*b*) "Repulsa nec Sthenebaea;"—all. "repulso:"—distinguish and interpret accordingly. So also *augusta* and *angusta* in rupe; *partam* and *parcam* colit asse; mitte *Ostia* and *ostia*.

9. Specify the cases which the following words severally are construed with:—causa, satis, quot, expers, patiens, æqualis, refert, tenus, hæreo, affinis utor, vescor.

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

MONDAY, DECEMBER 16TH:—MORNING, 9 TO 12.

EUCLID.—ARITHMETIC.

## FIRST YEAR.

*Examiner*, .....ALEXANDER JOHNSON, LL.D.

1. On a given right line construct a parallelogram equal to a given triangle and having an angle equal to a given angle.

2. Divide a given right line so that the rectangle under the whole line and one part shall be equal to the square of the other.

α. If from the greater segment a part be cut equal to the less, the greater segment will be cut in the same manner as the whole line.

3. In equal circles or the same circle, equal angles, whether at the centres or circumferences, stand upon equal arcs.

α. The arcs intercepted on any circle by two parallel lines are equal.

4. In a circle inscribe a regular hexagon.

5. If $a : b :: c : d$

Prove $a + b : a - b :: c + d : c - d.$

6. If two triangles have an angle in each equal, and the sides about the equal angles proportional, the triangles are equiangular, and those angles are equal which are opposite to the homologous sides.

7. If four straight lines be proportional the rectangle under the extremes is equal to the rectangle under the means.

8. Add together $2\frac{1}{2} + 3\frac{1}{4} + \frac{5}{8}$ and divide half the sum by the difference between $\frac{3}{8}$ and ·045.

9. Divide .004 by 25.6, and reduce the quotient to a vulgar fraction.

10. Extract the square root of 573.

11. Find a third proportional to .037 and .002.

12. Find the interest on $6754 for 4 months, at $6\frac{1}{2}$ per cent. per annum.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

MONDAY, DECEMBER 16TH:—MORNING, 9 TO 1.

EUCLID.—ALGEBRA—TRIGONOMETRY.

## SECOND YEAR.

*Examiner*,.....ALEXANDER JOHNSON LL.D.

1. On a given right line describe a segment of a circle containing an angle equal to a given angle.

*a*. Given base, vertical angle, and radius of inscribed circle of any triangle. Construct it.

2. Inscribe a regular quindecagon in a given circle.

3. Similar triangles are to one another in the duplicate ratio of their homologous sides.

4. Parallelograms about the diagonal of any parallelogram are similar to the whole and to each other.

5. Solve the equations

$$\frac{2x-1}{4\frac{1}{2}} - \frac{\frac{2}{3}x+4}{5} = \frac{4}{5}(x-8):$$

$$ax + by + c = + a'x o, b'y\ c' = o;$$

$$\frac{(x-1)}{4}\frac{(x+1)}{} = 5x^2 + \frac{1}{2}; = 5x^2 + \frac{1}{2}$$

6. Divide 150 into two parts, such that if one be divided by 23 and the other by 27, the sum of the quotients may be 6.

7. Divide $1 + \frac{1}{x}$ by $x - \frac{1}{x}$ and multiply the quotient by $(1 - \frac{1}{x})^2$

8. Find the greatest common measure of $x^3 + 3x^2 + x - 5$ and $x^4 - 6x^3 + 9x + 2x - 6$.

9. Define a logarithm, and prove that the logarithm of the product of two numbers is equal to the sum of their logarithms.

10. Prove that $a^0 = 1 : a^{-m} = \frac{1}{a^m}$

11. $Tan\ (A + B) = \frac{tan\ A + tan\ B}{1 - tan\ A\ tan\ B}$.

12. The sides of a triangle are in the same ratio as the sines of the opposite angles.

13. The sides of a triangle are 125 178, and 210 feet; calculate the angle opposite the first.

14. Calculate the area of the above triangle.

15. Given the distances between three objects and the angles they subtend at any station; show how the distances of the station from the objects may be found.

16. From the top of a tower 136.5 feet high, the angle of depression of the root of a tree at a distance on the same plane was 22° 40′; find the distance of the tree from the bottom of the tower.

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## CHRISTMAS EXAMINATIONS, 1872.

TUESDAY, DECEMBER 10TH:—MORNING, 9 TO 11.

EUCLID, BOOKS XI. & XII.—CONIC SECTIONS (PARABOLA).

## SECOND YEAR.

*Examiner*,..... .....ALEXANDER JOHNSON, LL.D.

1 If two planes which cut one another be, each of them, perpendicular to athird plane, their common section shall be perpendicular to the same plane.

2. If two straight lines be parallel, and one of them be at right angles to a plane, the other shall also be at right angles to the same plane.

3. Draw a straight line perpendicular to a plane from a given point above it.

4. Circles are to one another as the squares on their diameters.

5. If a perpendicular be let fall from the focus on any tangent to a parabola, and be produced till it meet the directrix, the part produced will be qual to the perpendicular.

6. Define the diameter of a conic section, and prove that in the parabola every diameter is a straight line parallel to the axis.

7. If two chords of a parabola intersect one another, the rectangles conained by their segments are in the ratio of the parameters of the diametersbisecting the chords.

8. Define the circle of curvature. Prove that its chord at any point of a parabola drawn parallel to the axis is equal to four times the distance of that point from the focus.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH:—MORNING, 9 TO 12.

MECHANICS—HYDROSTATICS.

## THIRD YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Give that part of Duchayla's proof of the Composition of Forces where it is shown that the resultant of any two commensurable forces meeting at a point, is in the direction of the diagonal of the parallelogram formed by the forces.

2. Three forces meeting in a point are in equilibrium; express the ratios of the forces by means of the angles between their directions.

3. In a lever of the third order, the power and resistance are 200 and 100 lbs. respectively; the angle between them is 40°, find the strain on the fulcrum.

4. Find the horse-power of a steam-engine capable of raising 750 tons of coal per day of 12 hours from a pit 100 fathoms deep.

5. Apply the principle of constancy of work done to find the ratio of the power to the resistance in the case of the wheel and axle.

6. The time occupied by a body in running down any chord of a circle whose plane is vertical, is constant.

7. Find the velocity acquired by a railway train in running down a gradient of 2164 ft., having a total fall of 31 ft.; the force of gravity being 32.19, and the resistance from friction and the air being estimated at 7 lbs. per ton.

8. A mean solar day contains 24 hours, 3 minutes, 56.5 seconds sidereal time: calculate the length of the pendulum of a clock beating sidereal seconds in London, (g=32.190-8.)

9. A closed cubical vessel whose side measured internally is 6 inches long, has a tube whose length is 2 feet, and sectional area 1 square inch, projecting from the top of it; water is poured in until the vessel and tube are full: find the pressure on the bottom of the vessel, and the total weight of the water.

10. A bucket of water rotates uniformly once a second round a vertical axis through its centre: calculate the length of the subnormal of the parabolic section of the surface of the water.

11. Describe the construction of the mercurial barometer, and state the corrections that must be applied generally to observations made with it.

12. Find the weight of air in a room 30 feet by 20 feet, and 15 feet high; the barometer standing at 30 inches, and thermometer at 58°, the weight of 100 cubic inches of air at temperature 60° and pressure 30 in. being 31.0117 grains.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH:—MORNING, 9 TO 1.

MECHANICS—HYDROSTATICS—OPTICS—ASTRONOMY.

## FOURTH YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. A man who can lift a weight of 120 lbs. uses a heavy crowbar (weighing 30 lbs., and 5 ft. long) to raise 5 cwt., how is the crowbar divided by the point of application of the weight?

2. A force is applied in *any* direction to support a body on an inclined plane; find the ratio of the Power to the Resistance.

3. The spaces described by a falling body in successive seconds are proportional to series of odd numbers.

4. A body whose weight is $w$ lbs. revolves uniformly in a circle whose radius is $r$, with a velocity $v$; show from Newton's Laws of Motion that the certrifugal force in lbs. is

$$\frac{w}{g}\,\frac{v^2}{r}$$

5. A bent tube, such as used in proving Boyle & Mariotte's Law, has mercury in both branches. The shorter branch is closed; it contains a column of air 10 inches in height; 10 lbs. of mercury are then poured into the larger branch; find the length of the column of air in the shorter, the sectional area of the tube being half a square inch, and the barometer standing at 30 inches.

6. What is the volume of 500 grains of oxygen at temp. 100° Fah., and pressure 30.56 inches (sp. gr. = 1.106).

7. Describe and explain the action of the pipette.

8. Investigate the force which causes the motion of a liquid in the siphon.

9. Describe the Gregorian Telescope, and find its magnifying power.

10. The refractive index of fluor spar is 1.434, and its dispersive power is .022; find the dispersion produced by a prism of it of 6° 11′ angle.

11. Find the principal focus of a double convex lens of glass ($\mu = \frac{3}{2}$) whose curvatures are equal.

12. Explain the formation of images by a plane mirror.

13. ($\alpha$) Investigate a method for finding the ratio of the mass of the Sun to the mass of the Earth; ($\beta$) Calculate it approximately.

14. The synodic time of Venus is 583.5 days; calculate its periodic time, explaining your method.

15. How would you find the latitude of a place by observations of the Sun?

16. The Moon's apparent diameter is 31′ 8.″8; its mean distance is 237640 miles; hence calculate its diameter in miles.

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## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 13TH :—AFTERNOON, 2 TO 4.

### FRICTIONAL ELECTRICITY—MAGNETISM.

*Examiner*,..... ..... .....ALEXANDER JOHNSON, LL.D.

1. Describe experiments in support of the two fluid theory of Electricity.

2. Describe Coulomb's torsion balance, and the mode of using it in determining the law of electrical repulsion. Give the numbers obtained in one set of experiments as an illustration of the truth of the law.

3. State rules for the construction of lightning rods.

4. Describe the electrophorus, and explain its action when it is used to charge a small Leyden jar.

5. Describe the process of slow discharge of a Leyden jar, and explain it.

6. A bar of soft iron is held horizontally, with one end presented towards the north pole of a suspended magnetic needle ; the bar is then raised into a vertical position, the lower end being the one which is next to the north pole. Describe the facts observed in the two cases, and account for them.

7. When a magnet is broken each part is a magnet. Explain this according to theory.

8. Define terrestrial Magnetic couple ; and explain why a magnetic needle, supported by cork so as to float on water will not move northwards although attracted to the North Magnetic Pole.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

### ENGLISH (GRAMMAR).

### FIRST YEAR.

THURSDAY, DECEMBER 19TH:—MORNING, 9 TO 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give the defining marks of the Noun.
2. Why is it necessary to make two divisions of the class of Nouns denominated "Significant"?
3. What are Abstract Nouns and Concrete Nouns?
4. On what principles can the employment of Verbs for Nouns, or of Nouns for Verbs, be explained?
5. [1] Why is it said that a Pronoun is a purely connotative name? [2] What part of speech is that which denotes without any connotation?
6. Mention the principal idiomatic constructions that depend upon the use of the pronoun "It."
7. Give examples of adverbs used as relatives.
8. Besides the use of pronouns, what other means may be employed to save the repetition of a noun.
9. Mention the circumstances that determine the use of the definite article.
10. Why is no classification given of the different kinds of predication in Grammar? Give the logical classification of predicates.
11. Give the substance of what is said of "the equivalents of the adverb in composition."
12. Give the classification of prepositions, according to their meanings.
13. Give the classification of the co-ordinating conjunctions.
14. Mention, with examples, the three ways of distinguishing the genders of nouns.
15. How is the plural of compound nouns formed?
16. What is the *Gerund* in English Grammar?
17. Give the substance of Dr. Bain's doctrine on the use of the relative "That."
18. Give the general rules for discriminating words of classical origin from those belonging originally to the Anglo-Saxon.
19. Which are the three kinds of subordinate clauses? Give examples.
20. Give a grammatical analysis of the following sentence:—'Tis true, flashes of wit give us a pleasant light, so long as they burn not; but this liberty must be bounded with caution; for wit should rather serve for a buckler to defend by a handsome reply, than a sword to wound others, tho' with never so facetious a reproach.
21. Subject of composition—the uses of the Sunday.

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CHRISTMAS EXAMINATIONS, 1872.

RHETORIC.

## THIRD YEAR.

THURSDAY, DECEMBER 19TH:—MORNING, 9 TO 12.

*Examiner*, .....VEN. ARCHDEACON LEACH, D.C.L.

1 State, generally, the plan of Whately's treatise.

2. Give the substance of the critical remarks on works on Rhetoric, ancient and modern.

3. State and explain the rules given in regard to the subject of "Inquiry after propositions."

4. State summarily the several divisions of arguments according to the different principles of division mentioned.

5. Explain the two great classes into which arguments are divided.

6. Give the analysis of the species of argument denominated "Sign."

7. Show the difference between Logical Sequence and Physical Sequence.

8. Mention the principal considerations in estimating the value of testimony.

9. Explain "the argument from progressive approach."

10. Explain the difference between the argument from Example and from Induction.

11. Give the substance of the remarks on important and unimportant, resemblances and differences of cases, in the employment of analogical arguments.

12. Give the principal considerations for determining on what side lies the "burden of proof."

13. What are the determining considerations in regard to the question of premises or conclusion coming first?

14. What are the circumstances to be attended to in the matter of "waiving of a question"?

15. [1] Explain the two modes of Refutation. [2] What is meant by Sophistical Refutation?

16. Give the substance of the remarks as to the kind of arguments that should have precedence.

17. Enumerate and explain the different kinds of Introductions.

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

ENGLISH LITERATURE (LANGUAGE).

## FOURTH YEAR.

THURSDAY, DECEMBER 19TH:—MORNING, 9 TO 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Why is it said that the most striking improvement in linguistic study may be dated from the discovery of Sanscrit?

2. Give examples illustrative of the assertion that no languages can be regarded as entirely pure and unmixed.

3. State the points of evidence in regard to the question of German settlements in Britain before the Anglo-Saxon conquests.

4. Show from the Anglo-Saxon language itself that there was a commingling of nations in the invaders of England.

5. State the different periods that have been assigned to our language; and give the rectifications proposed by Dr. Marsh.

6. Mention the period in which English became fixed in Grammar and Vocabulary.

7. Explain the proposed distinction between the Sciences—Linguistics and Philology.

8. Mention some of the traces in the English language that have been left by the Roman Conquerors of Britain.

9. What are the circumstances that render it probable that a considerable Celtic element would be introduced into the language after the Anglo-Saxon conquests.

10. Explain the difficulty in regard to the ascertaining of the Danish element in the English language.

11. Mention the historical events that first opened the way for the introduction of the Latin element through the French.

12. Show that it is erroneous to regard the English language as the result of a mixture of Anglo-Saxon and French.

13. Give the substance of Dr. Marsh's remarks on the philological studies called "Literæ humaniores."

14. When the use of a word can be traced back to a remote antiquity without any historical or grammatical relation, of what value is the knowledge of its etymology?

15. What are the kinds of words whose etymology is really useful?

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## CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 21ST:—MORNING, 9 TO 12.

### EARLY ENGLISH HISTORY.

*Examiner*,.....PROFESSOR GOLDWIN SMITH, M.A.

1. Show how the course of Irish history has been affected by the physical circumstances of the country.

2. What are the Teutonic elements in the population of the British Islands? What special influences, previous to its settlement there, had each element undergone?

3. Describe the organization of Britain as a Roman Province.

4. Trace the National Assembly of England through its successive phases from primitive times to the end of the reign of Henry III.

5. What circumstances led to the union of the Kingdoms under Egbert? Was it complete? Had there been any previous union?

6. What institutions have been ascribed to Alfred, and with what degree of truth?

7. What party struggles marked the reign of Edward the Confessor?

8. Describe the part taken by the Papacy in the Norman conquest of England. What were the ecclesiastical results?

9. Give a brief account of the resistance made to the Conqueror after the battle of Hastings, and explain its feebleness.

10. Give characters of the three sons of William the Conqueror—Robert, William Rufus, and Henry I.

11. Henry I. speaks of himself as "elected by the clergy and laity." (*A clero et a populo Angliæ electus.*) Comment on this expression.

12. Trace the growing influence of the city of London through the period from the conquest to the end of the reign of Henry III.

13. When did Law begin to assume the character of a science in England?

14. What effects were produced in England by the Crusades?

15. What circumstances led to the granting of the Great Charter? Can the charter be justly called aristocratic?

16. Classify the events of the reign of Henry III., and name the leading men who took part in them.

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## CHRISTMAS EXAMINATIONS, 1872.

THURSDAY, DECEMBER 19TH :—AFTERNOON, 2 TO 5.

## LOGIC.

### SECOND YEAR.

*Examiner*.....REV. J. CLARK MURRAY.

1. Define [*a*] *term*, [*b*] *proposition*, [*c*] *syllogism*.

2. Of the following terms state [*a*] which are general ; [*b*] which abstract ; [*c*] which connotative ; [*d*] which relative : *That good man, Goodness, Cause, The cause of that occurrence, Aristotle, The founder of the Peripatetic philosophy, River, The Rhine.*

3. [*a*] Explain what is meant by *extension* and *intension* respectively.
[*b*] Show that they are always in an inverse proportion to one another.

4. [*a*] What do A, E, I, and O, respectively represent ? [*b*] In which is the subject, in which is the predicate, distributed ?

5. Give the several opposites of each of the following propositions :
[*a*]. All knowledge is good ;
[*b*]. No lie is of the truth ;
[*c*]. Some propositions are true ;
[*d*]. Some propositions are not important.

6. Convert each of the propositions given under the preceding question.

7. State the several terms and propositions in the following syllogism :
Electricity will travel along a tied nerve ;
The nerve-force will not travel along a tied nerve ;
Therefore the nerve-force is not electricity.

8. [*a*] What term must be distributed in the premisses of every syllogism ? [*b*] Explain the reason.

9. What term must also be distributed in the premisses, [*a*] when the conclusion is universal, [*b*] when the conclusion is negative ?

10. Name the mood and the figure of the syllogism given under the seventh question.

11. State whether the following argument is legitimate, giving the reason for your answer :
If Cicero is infallible, retail trading is dishonest ;
But Cicero is not infallible ;
Therefore retail trading is not dishonest.

12. Analyze the following Sorites into its component syllogisms :
Cato is virtuous ;
The virtuous man is what God delights in ;
What God delights in must be happy ;
Therefore Cato must be happy.

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## CHRISTMAS EXAMINATIONS, 1872.

THURSDAY, DECEMBER 19TH :—AFTERNOON, 2 TO 5.

### MENTAL PHILOSOPHY.

## THIRD YEAR.

*Examiner*, .....REV. J. CLARK MURRAY.

1. Explain the origin of the terms *Psychology* and *Metaphysics*.

2. State the general characteristic by which the phenomena of mind are distinguished from the phenomena of matter.

3. Name the three great classes into which mental phenomena are divided.

4. (*a*) Distinguish the two divisions of the senses, and [*b*] mention the senses included in each.

5. What sensations often mingle, and become confounded, [*a*] with those of taste, [*b*] with those of smell?

6. Distinguish [*a*] the two species of sounds, [*b*] the three properties by which different tones are discriminated.

7. What is the only agent that produces the sensations of sight?

8. (*a*) Explain the experiments by which Weber determined the comparative tactile acuteness of different parts of the skin. [*b*] Name the most acute and the most obtuse parts.

9. Distinguish the primary and the secondary laws of suggestion.

10. Name and state the two primary laws.

11. Explain how [*a*] suggestion by similarity, [*b*] suggestion by contrast, is due to these two laws.

12. If A repeats a lesson twelve times, and B only three times, with the same attention, the former remembers it better afterwards; but if A repeats it twelve times inattentively, and B three times with intense application, the latter may remember it better. Point out the law to which the result in both cases is due.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872

WEDNESDAY, DECEMBER 18TH:—AFTERNOON, 2 TO 5.

## MENTAL PHILOSOPHY.

## FOURTH YEAR.

*Examiner*.....REV. J. CLARK MURRAY.

1. [*a*] What two factors are required to constitute knowledge? [*b*] Give the principal names by which each is designated.

2. Explain [*a*] the original meaning, [*b*] the present philosophical usage, of the terms *subject* and *object*.

3. Distinguish [*a*] *intuitive* and *comparative* cognitions, [*b*] *presentative* and *representative* cognitions, [*c*] *selfconsciousness* and *external perception*.

4. What conditions of bodies are most appropriate to the senses of smell, taste, and touch, respectively?

5. Explain the real nature of what are called *fresh smells* and *close smells*.

6. Explain how we learn to perceive the *distance* of sonorous bodies by their sounds.

7. Why cannot a person, who is deaf in one ear, perceive the *direction* of sounds?

8. State the facts which prove that we cannot perceive distance by sight alone.

9. Explain the cause of the illusion described in the words that are italicised in the following quotation:

> "But the other swiftly strode from ridge to ridge,
> *Clothed with his breath, and looking, as he walked,*
> *Larger than human on the frozen hills.*"
>
> *Tennyson's Morte d'Arthur.*

10. Describe briefly the deficiencies in the congenitally blind person's state of mind.

11. Gough, the blind botanist, used to distinguish the minuter species of plants by applying them to the tip of his tongue. Why should he have done so?

12. Classify the sensations of touch.

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 20TH:—MORNING, 9 TO 12.

FRENCH.

## FIRST YEAR.

*Examiner*,.....P. J. DAREY, M.A., B.C.L.

1. Write the two plurals of the words *aïeul*, *ciel*, *œil*, and explain when to use either plural. Give six examples.

2. Explain when the partitive article *some* or *any* is expressed in French by *de* or *d'*. Give four examples.

3. What are the adjectives which double their last consonant before adding *e* to form their feminine? Give examples. Write five adjectives which do not follow this rule.

4. Explain fully the rules to write in the plural those cardinal numbers which are written in the plural in French. Give three examples.

5. What are the classifications made in French with the English *Adjective Possessive Pronouns*. State the reason given by the French to make division. Give examples.

6. State the difference of meaning between *celui-ci*, *celui-là* and *ceci*, *cela*. Give four examples.

7. What do you call *Indefinite Pronouns?* Give the complete list of them with their meaning.

8. How many conjugations are there in French? How are they distinguished? What do you call *radical* in verbs. Give three examples.

9. How are the English negatives *no*, *never*, *nothing*, *no longer*, translated? Where do you place them? Give an example with each negative.

10. Write the *Imperfect of the Indicative and Subjunctive*, the *Preterite Definite* of the verbs, *il y aura*, *il faudra*, *nous parlerons*, and *que je sois*.

11. Translate into English:

*Alcantor.* Ecoutez. Les volontés sont libres; et je suis homme à ne contraindre jamais personne. Vous vous êtes engagé avec moi pour épouser ma fille, et tout est préparé pour cela; mais puisque vous voulez retirer votre parole, je vais voir ce qu'il y a à faire; et vous aurez bientôt de mes nouvelles.—*Alcidis.*. D'autres gens feraient du bruit et s'emporteraient contre vous; mais nous sommes personnes à traiter les choses dans la douceur.

MOLIÈRE *le Mariage forcé.*

12. Translate into French:

He will grow bold. We applied to the prime minister. It would be necessary to inquire about it. Why did you not answer his question? They will owe their misfortunes to their faults. Have you not better pens to lend me? No one is satisfied with his fortune nor dissatisfied with his own wit. These ladies were quite surprised to see him. Whatever efforts you may make, you will not succeed. He knows not what course to take. Those arguments are conclusive; I see no reply to them.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 20TH :—MORNING, 9 TO 12.

## SECOND YEAR,

*Examiner*,.....P. J. DARBY, M.A., B.C.L.

1. When are *the definite* and *the indefinite article* to be omitted in French? Give four examples. State two cases when the omission of the *indefinite article* does not take place conformably to the rule stated above. Give three examples.

2. Translate into French: *Ancient and Modern philosophers*, and give the rule concerning the use of the article in this, and in similar phrases.

3. When are the words *couple*, *manche*, *mousse*, *personne*, *quelque chose*, *souris*, *voile*, masculine and when feminine?

4. State three cases when a pronoun subject is placed after the verb, although no interrogation is meant. Give an example in each case.

5. State the difference of meaning between :—

*Mauvais air* and *L'air mauvais*. *Une fausse porte* and *Une porte fausse*.
*Un petit homme* " *Une homme petit*. *Une sage-femme* ' *Une femme sage*.
*Une fausse clef* " *Une clef fausse*. *Un seul homme* ' *Un homme seul*.

6. When do you translate *he*, *they* by *ce* before the verb *être*, and when by *il*? Give two examples. Explain fully when the verb *être* after *ce* must be put in in the plural. Give two examples.

7. State the rule concerning the pronoun *le*, 1st, standing for a noun, and 2nd, standing for an adjective. Give two examples in each case.

8. Where do you place the adjectives of dimension in French? State the two ways of constructing the sentence. Give two examples. In what does the English manner of expressing dimension differ from the French? Give examples.

9, Of what kingdom was Mithridates King? When did he live? What were the three famous Roman Generals opposed to him? How did he die?

10. Translate into English the following sentences from *Mithridate* :—
Et quand de toi peut être un père se défie. Quand peut-être il y va de ta vie. Tant de bontés ont lieu de me confondre. Ma funeste amitié pèse à tous mes amis. Chacun à ce fardeau veut dérober sa tête. Dussiez-vous présenter mille morts à ma vue..... O ciel! me serais-je abusée? Des amants qui voudraient que tout cédât au soin de leurs plaisirs.

11. Translate into French :—
He is always seen with wits or great lords. Self-love and pride are always the offspring of a weak mind. Gold is the surest of all pass-keys. Saddle my black horse. Sicily is subject to great earthquakes. Although the Chinese boast of being the most ancient nation, they are far from being the most enlightened. You were hardly gone when your brother arrived The people from whom you expect so many services deceive you. Misers are tormented with the fear of losing what they have. Liberality consists less in giving much, than in giving seasonably. I will endeavour to satisfy you.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DEC. 20TH:—MORNING, 9 TO 12.

### FRENCH.

### THIRD YEAR.

*Examiner*,..... .....P. J. DAREY, M.A., B.C.L.

*Toutes les réponses devront être faites en français.*

1. Comment formez-vous le pluriel des noms terminés en *al*? Nommez sept exceptions à cette règle.

2. A combien de changements l'article est-il sujet? Donnez des exemples.

3. Combien y a-t-il de sortes d'adjectifs? En combien d'espèces divise-t-on chacune de ces sortes d'adjectifs?

4. Quels sont les mots qui sont tantôt adjectifs indéfinis et tantôt pronoms indéfinis? Quand sont-ils pronoms, et quand sont-ils adjectifs?

5. Qu'est-ce que le verbe? Combien y a-t-il réellement de verbes? Pourquoi? Qu'est-ce qu'un verbe attributif? Qu'est-ce que vous appelez complément d'un verbe? Combien y en a-t-il? Définissez chacun de ces compléments.

6. Qu'est-ce qui fait le fonds de la tragédie du *Cid*? Citez les deux vers qui résument toute cette tragédie.

7. Dans quel ordre placez-vous les cinq principaux personnages de cette pièce sous le rapport de l'intérêt qu'ils inspirent et de la hauteur de leurs sentiments?

8. Au point de vue de nos mœurs, qu'est-ce qu'on peut justement blâmer dans cette tragédie?

9. Traduisez en anglais les 32 premiers vers de la scène IIIe de l'acte IIIe de la tragédie du Cid.

10. Traduisez en français:

As we carried on the former dispute with some degree of warmth, in order to accommodate matters, it was universally agreed that we should have a part of the venison for supper, and the girls undertook the task with alacrity. "I am sorry, cried I, that we have no neighbour or stranger, to take part in this good cheer. Feasts of this kind acquire a double relish from hospitality."—"Bless me, cried my wife, here comes our good friend Mr. Burchell, that saved our Sophia, and that ran you down fairly in the argument."—"Confute me in argument, child! cried I, you mistake there, my dear. I believe there are but few that can do that. I never dispute your abilities in making a goose-pie, and I beg you will leave argument to me." As I spoke, poor Mr. Burchell entered the house and was welcomed by the family, who shook him heartily by the hand, while little Dick officiously reached him a chair.

GOLDSMITH, *the Vicar of Wakefield.*

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, DECEMBER 20TH:—AFTERNOON, 2 TO 5.

GERMAN.

## JUNIOR CLASS

*Examiner*, .....C. F. A. MARKGRAF, M.A.

1. Translate into English:—

"Der Wolf auf dem Sterbebette," by Lessing. (See Adler's Reader.)

2. *a.* What Nouns may take the Plural endings „ n" or „ en"?

*b.* Which *feminine* Nouns *must* soften the radical vowel in the Plural?

*c.* Which neuter Nouns do *not* soften the radical vowel in the Plural?

*d.* What Nouns remain *invariable* in the Plural?

3. Give the Nominative and Accusative Singular, and the Nominative Plural of:—the great man; that happy nation; a fine country (plur. fine countries); some good cloth.

4. Give the gender, meaning and Nominative Plural of Thür, Vogel, Freundinn, Blatt, Hut, Nachbar, Gärtchen, Tag, Wasserglas, Bank, Brücke, Löwe.

5. *a.* How are Adjectives formed from nouns of substance? Give the rule, and convert the following nouns into adjectives:—Stein, Stoff. Krystall, Leder, Eisen, Blech, Wolle, Holz, Papier, Gold, Perlmutter, Metall, *b.* Write down the Comparative and Superlative of arm, grob, schwarz, kurz. How do you render „ hoch" in 'the house is high; the high house; the higher one; the highest one'?

6. *a.* Write in full letters 483, 6091, 75279. *b.* Translate:—This merchant has sold *a* hundred yards of silk. This is the year 1872 (in letters). I have seen him *twice* to-day. Have you been there *a second* time? We have no *time* to stay.

7. Which declinable words take *always* „e" in the Nominative Plural?

8. Explain the difference in meaning between Worte and Wörter; Leute and Volk; Obst and Frucht; nur (only) and erst (only); nein, nicht and kein; lang (adj.) and lange (adv.); fragen (to ask) and fordern (to ask); aber and sondern.

9. *a.* How is the Imperative Mood generally expressed in German? *b.* Which persons, and of what tense, are like the Infinitive? Do you know of any exceptions?

10. Parse the following Verbs, and give their Present Infinitive:— mag, ausgegangen, gewußt, darf, gereis't, glaubt, kann, gebracht, nehme, tadelt, gegeben, muß, gebacken, gebunden.

11. Translate into German:—

One good friend is better than many faithless friends. Dear works are not always the best. I know this man, but I do not know where he lives. His two eldest brothers are very clever; they know *how* to write, read and speak German well (gut). What is that? Pray, let me see it. It is nothing beautiful. Here is some fresh, clear water. Those ladies are my cousins. July and August are usually the warmest months. Do you like the pictures which I bought (have)? We like to hear good music. Tell him to go through that narrow street on the left; he can then find his way home. That old peasant has already lived eighty years, and has never been ill.

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

FRIDAY, SEPTEMBER 20TH:—AFTERNOON, 2 TO 5.

GERMAN.

## SENIOR CLASS.

*Examiner*,.....C. F. A. MARKGRAF, M.A.

1. Translate the following Fragment from Schiller's: „Jungfrau von Orleans."

### Johanna.

Wir ſollen keine eignen Könige
Mehr haben, keinen eingebornen Herrn —
Der König, der nie ſtirbt, ſoll aus der Welt
Verſchwinden — der den heil'gen Pflug beſchützt,
Der die Trift beſchützt und fruchtbar macht die Erde —
Der die Leibeignen in die Freiheit führt,
Der die Städte freudig ſtellt um ſeinen Thron —
Der dem Schwachen beiſteht und den Böſen ſchreckt,
Der den Neid nicht kennet — denn er iſt der Größte —
Der ein Menſch iſt und ein Engel der Erbarmung
Auf der feindſel'gen Erde — Denn der Thron
Der Könige, der von Golde ſchimmert, iſt
Das Obdach der Verlaſſenen — hier ſteht
Die Macht und die Barmherzigkeit — es zittert
Der Schuldige, vertrauend naht ſich der Gerechte
Und ſcherzet mit den Löwen um den Thron!
Der fremde König, der von Außen kommt,
Dem keines Ahnherrn heilige Gebeine
In dieſem Lande ruhn, kann er es lieben?
Der nicht jung war mit unſern Jünglingen,
Dem unſre Worte nicht zum Herzen tönen,
Kann er ein Vater ſeyn zu ſeinen Söhnen?

2. Give the date of the completion of this drama, and narrate briefly the historical events which constitute the ground of it. Delineate the character of Joanna and King Charles VII.—Can you quote Goethe's words in reference to this drama?

3. [*a*] Give the 4 cases Sing. and Plural of keine eigenen Könige, keinen eingebornen Herrn. [*b*] die Leibeigenen, dem Schwachen, den Böſen, der Größte, den Verlaſſenen, der Schuldige, der Gerechte.—What parts of speech are those words, and how are they inflected? Decline some of them with the def. and indef. article.

4. [*a*]. der nie ſtirbt; der den Neid nicht kennet;—What sentences are these? In what sense is „der" used here? Explain. [*b*]. Give the 1st Sing. of the Imperfect Indicative and Subjunctive of ſtirbt and also of helfen, werfen, ſtehen, empfehlen, gewinnen How is the Imp. Subj. formed in kennet? Do you know any other verbs which form it in *like* manner?

5. Parse the following Forms of Verbs, and give the Present Infinitive of each :—läuft, ließ, lies, trägſt, hätte gebeten, thäteſt, triffſt, nimm, gerufen haben, ſchöße, ſieh', ſtößeſt, hieße, verbändet, bäten.

6. [*a*]. State briefly the rules relating to the conjugation of *reflective* verbs; and write out the 3rd Sing. of all modes and tenses of „ſich ankleiden." [*b*]. Give instances where the English pronouns '*myself, thyself, &c.*', may be rendered by „ſelbſt" in German.

7. [*a*] What Proper Name take ens or ns in the Genitive? [*b*]. When do Proper Names *always* take the definite article? [*c*.] When do Proper Names of persons remain *unchanged?* Give examples.

8. Conjugate in the *Passive* voice „anklagen,"—giving the 2nd Sing. of all modes and tenses.

9. Translate, and explain the construction of the following sentences :—heute gehe ich nicht aus. Auf dieſer Straße ſieht man viele Menſchen. Was würdeſt du thun, wenn das geſchähe? Ich glaubte, er könne es nicht thun.

10. Translate into German :—

We rejoice at your good fortune, but we are very *much* grieved at [*a*] news which we have received this morning. The duties of those men to whom much is given, are greater than the duties of those who possess little. Is this what you promised [Perf.] me? Remember us. That which I said is true. Tell me whose advice you like best to follow. The Cossacks and Arabs are excellent horsemen. Many princes in former times kept astrologers at their courts. Pray, come in and sit down here, till I come down again. This book does not belong to me ; it is yours. Your native town lies on [an] the Rhine ; and mine on the Danube. Switzerland is a very fine country ; there are many curiosities in it.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

TUESDAY, DECEMBER 17TH :—MORNING, 9 TO 12.

### HEBREW.

### JUNIOR CLASS.

*Examiner*, ..... REV. A. DE SOLA, LL.D.

1. Give a brief sketch of the history and character of the Hebrew language, pointing out (*a*) its origin; (*b*) its claims to be regarded as the primitive language of man, demonstrated, first, by a scientific investigation of its structure; secondly, by tradition and the internal evidence of the Hebrew Scriptures; (*c*) give the opinions as to the age and origin of its vowel system; (*d*) refer to the labors of the Masorites and Cabalists; and (*e*) show the general character of the language and its relation to the other Semitic dialects, especially to the Phœnician.

2. Write the rules for the definite article; show the origin of its *Dagesh forte*, and exhibit the changes of punctuation necessitated by the occurrence of a guttural letter immediately following ה.

3. Attach the prepositions ב, כ, ל, מ to the no סוסם and עיר; first, with their ordinary punctuation; then, to the nouns with the def. art. prefixed in full form; then, with the contracted form of the article and preposition.

4. Give the rules for שוא נח and שוא נע; and show how *Sheva* is affected by the occurrence of the gutturals.

5. Describe מתג, מפיק and מקף; and show how the latter affects the accent.

6. Give the rules for קמץ רחב and קמץ חטוף; and show how they may be distinguished from each other.

7. Describe דגש קל and דגש חזק; show their relative positions in words; and give the rules referring to compensation for *Dagesh forte*.

8. Show how are formed, the pl. masc. of nouns; pl. fem.; the dual; and the feminine terminations in the singular.

9. Explain *Patach furtivum*, and composite *Sheva*; show when they are employed.

10. Translate into Hebrew :—The man and the woman dwell in the house near to the city. The horse and the mare are in the garden. From day to day and from year to year. As a servant to the master. And from the king and queen. He smote him on the hands and feet (dual.). The men respected the laws of the country in which they dwelt.

11. Translate into English :

הסוס אשר בגן והאיש אשר בבית: מן העיר אל השדה ומן הגן
אל הבתים: לאיש ולהאשה בשמחה ובטוב לבב: בים וביבשה: מן
הבתים מן החצרת ומן השדת: לך הישועה על עמו ברכתו:

# McGILL COLLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

TUESDAY, DECEMBER 17TH :—MORNING, 9 TO 12.

HEBREW.

## SENIOR CLASS.

*Examiner*,.....REV. A. DE SOLA, LL.D

1. Reduce into three chief classes, the paradigms of masculine nouns as found in Gesenius, explaining their distinguishing characteristics, and showing what effect the employment of mutable and immutable vowels has on the formation of the construct forms in the singular.

2. Translate Psalm XVI., and the first 20 verses of Psalm XXII.

3. Analyze fully verses 4, 8, & 9 of Psalm XVI. ; and show how the passage in v. 4, מהרו אחר ירבו עצבותם has been variously rendered ; and remark upon לא and אל, בל. Analyze verses 15, 16 and 17 in Psalm XXII.

4. Conjugate the Verb למד in the *Kal* form.

5. Decline the Noun ילד in both numbers, adding pronominal fragments.

6. Show the changes a noun undergoes when terminating in ה to form the construct sing ; the nom. pl. ; the dual ; and when in regimen with the pronominal suffixes.

7. Give some examples illustrating the rules affecting Adjectives and Nouns when in connection with each other, and with predicates in sentences where the copula is omitted.

8. Give the characteristic points of the prefixes (sing. and pl.) in the future tenses of the *Kal*, *Niphal*, and *Piel* forms.

9. Illustrate the laws of contraction and compensation in Hebrew by reference to combinations of the various parts of speech, e. g. the def. art. with the preposition, and omission of dagesh forte ; and in the Verbs, the contraction of the affixes and compensation of elided letters by dagesh.

10. Translate into Hebrew :—They cried unto thee and were delivered ; they trusted in thee and were not confounded. They opened their mouths against me as a ravening and roaring lion. The lines are fallen unto me in pleasant places ; therefore my heart is glad and my glory rejoices, my flesh also shall rest in hope.

11. Translate into English :

ואהבת את ה' אלהיך בכל לבבך ובכל נפשך ובכל מאודך : כל
הדברים אשר דבר ה נעשה ונשמע : כרחם אב על בנים רחם ה' על
יראיו : טוב ה' לכל ורחמיו על כל מעשיו :

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

WEDNESDAY, DECEMBER 18TH:—AFTERNOON, 2 TO 5.

ELEMENTARY CHEMISTRY.

## FIRST YEAR.

*Examiner*,.....B. J. HARRINGTON, B.A., Ph. D.

1. How is Nitrogen prepared, and what are its properties?

2. Give the composition of some of the more important Explosives used in blasting.

3. Explain Ampère's Law, and show its importance in determinations of molecular weight.

4. A litre-flask is filled with Hydrogen when the temperature is 10° C., and the pressure 750 mm.; how many cubic centimetres will escape if the temperature rises to 25° C., and the pressure is reduced to 680 mm.?

5. Write a formula illustrating the reaction which takes place when Hydric Sulphate acts upon Calcic Carbonate, and give the properties of one of the products.

6. Give the composition and properties of Ammonia.

7. Explain the reactions indicated by the following formulæ:—

$$KNO_3 + H_2SO_4 \qquad {}_3 + KHSO_4.$$
$$4\,CO_2 + 3\,Fe = Fe_3O_4 + 4\,CO.$$

8. What are the properties of Carbonic Oxide, and what the best method for preparing it?

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

WEDNESDAY, DEC. 18TH; FORENOON, 9 TO 12.

ELEMENTARY BOTANY.

## SECOND YEAR.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. Describe the vegetable cell; stating its parts, manner of growth, and modifications.

2. Describe the various kinds of vascular tissue; with their mode of formation and uses.

3. State the composition, mode of occurrence, and uses of Chlorophyll, Raphides and Albumen, as found in the cells of plants.

4. What are Phænogams, as distinguished from Cryptogams.

5. Explain the terms Internode, Rhizoma, Corm, Phyllodium.

6. Explain the character and arrangement of the tissues in Exogenous and Endogenous stems.

7. State the peculiarities of the stems of Acrogens.

8. Explain fully the anatomy of the leaf; and state the manner of its separation from the stem.

9. State the sources of the carbon of plants; and the chemical changes involved in the production of mucilage and albumen.

10. What are the principal inorganic substances found in plants; and their uses to the plant?

# McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1872.

WEDNESDAY, DEC. 18TH:—FORENOON, 9 TO 12.

ELEMENTARY ZOOLOGY.

## THIRD YEAR.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. Describe the Cells of Blood, and Pigment Cells.

2. Describe the Nervous tissues.

3. Describe the organs of support and voluntary motion in Vertebrata and Articulata.

4. Explain the primary subdivision of the animal kingdom into Provinces; giving the characters of one of them in full.

5. Explain the processes of digestion or respiration; with the organs employed.

6. What is a Species in zoology, as distinguished from a Genus on the one hand and a Variety on the other.

7. State the classes into which any of the Provinces of animals may be divided; and the grounds of the arrangement.

8. Explain fully Secretion and Ciliary motion.

9. Describe the appearance of Bone under the microscope.

10. How may the simpler animals be distinguished from Plants?

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1872.

WEDNESDAY, DEC. 18TH:—AFTERNOON, 2 TO 5.

MINERALOGY AND PHYSICAL GEOLOGY (IN PART).

## FOURTH YEAR.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. What are the primary forms of the Dimetric and Monoclinic systems of crystallization ?

2. Explain lamellar and fibrous structure.

3. Explain fully any two of the following terms:—(*a*) Pseudomorph, (*b*) Botryoidal, (*c*) Dimorphism, (*d*) Conchoidal.

4. State the characters and mode of occurrence of Hornblende ; and its principal varieties.

5. Describe Talc, Chlorite, and Serpentine; and state their characteristic differences.

6. State the chemical composition and distinctive characters of Apatite, Gypsum, Limonite, and Cassiterite.

7. Define the terms aqueous, volcanic, plutonic, and metamorphic, as applied to rocks ; with examples.

8. Explain the consolidation and hardening of aqueous deposits ; and the usual modes of mineralization of organic remains.

9. Explain dip ; strike ; anticlinal and synclinal arrangements ; and unconformability.

10. Explain denudation; and some of the results which it produces in horizontal and inclined strata.

11. State the data for the determination of the relative ages of stratified rocks ; and the manner of applying them.

12. Explain the nature and mode of occurrence of faults, verticality, and contortions of beds.

13. Name and refer to their places in the classification the Rocks and Minerals exhibited.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH:—MORNING, 9 TO 12.

### CHAIN SURVEYING.

*Examiner*,..... G. F. ARMSTRONG, M.A., C.E.

1. What are the Chains usually employed by Surveyors and Engineers? Describe each, stating the particular kind of operations to which it is especially adapted: and mention also what precautions are necessary to be observed in the use of all.

2. Describe and illustrate the mode of ranging and chaining a line.

3. What are *ill-conditioned triangles* and why is their use forbidden in practice?

4. Explain and illustrate the following:—"Base Line"—"Station"—"Check Line"—"Offset"—"Cross Staff"—"Bearing.'

5. Exhibit any methods of keeping a Field Book with which you are acquainted, and point out their respective merits.

6. Plot the Survey contained in the accompanying Field Notes, and compute its area.

NOTE.—Neatness and accuracy are, in all cases, essential.

| OFFSETS | CHAINS. | OFFSETS. |
|---|---|---|
| Cleck Line | 10·60 | to B on A B. |
| From 10·56 on 25·04 | 0·00 | |
| Cleck Line | 3·51 | to 18·60 on 25·04. |
| From 6·0 on A B | 0·00 | |
| D——— | 25·04 | ——— × to A on A B. |
| | 24·50 | 60 + D 20 |
| | 20·00 | 74 + D 20 |
| Δ | 18·60 | 35 + D 20 |
| | 16·50 | 13 + D 20 |
| | 14·30 | 90 + D 20 |
| | 12·20 | 14 + D 20 |
| Δ | 10·56 | |
| | 8·50 | 30 + D 20 |
| | 4·25 | 11 + D 20 |
| D——— | 0·00 | ——— × |
| From 13·46 on 13·46 | | |
| D——— | 13·46 | ——— to 0·00 on 25·04 |
| I + 22 | 12·90 | |
| I + 80 | 10·70 | |
| I + 12 | 7·08 | |
| I + 98 | 4·58 | |
| I + 20 | 1·00 | |
| D——— | 0·00 | ——— × |
| From 19·46 on A B | | |
| I——— | 19·46 | ——— × to B on A B. |
| | 16·00 | 12 + D |
| | 14·90 | 96 + D |
| | 12·00 | 15 + D |
| | 10·00 | 11 + D |
| | 8·40 | 24 + D |
| Δ | 6·00 | |
| | 5·20 | 50 + D |
| | 0·50 | 15 + D |
| D——— | 0·00 | ——— × |
| From A on A B | | Bearing N.N.W. |

# McGILL COLLEGE, MONTREAL,

## DEPARTMENT OF PRACTICAL AND APPLIED SOIENCE.

CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH:—MORNING, 9 TO 12.

PRACTICAL MECHANICS.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. What do you understand by the Specific Gravity of a body? A C. I. pipe has an internal diameter of 4 inches, and is two feet long: its weight is 128.8 lbs. and it is 1¼ inch thick. Determine the Sp: Gv: of the metal.

2. Explain and illustrate the term "Modulus of Elasticity."

3. What forms of effect do the results of rupture by compressive stress exhibit? Distinguish also between "strain" and "stress."

4. What do you understand by the "Modulus of a Machine," and what is the meaning of the term "Unit of work"?

A Pumping Engine, capable of raising 150 cubic feet of water per minute from a pit 100 fathoms deep, burns 135 bushels of coal in 24 hours. What is the duty of the Engine?

5. An iron cylinder weighing 140 lbs. rests between two planes, each inclined to the horizontal at an angle of 30°. Determine, analytically or graphically, the pressure on each plane.

6. A wall 20 feet high is thrust outward, by a pressure of 1200 lbs., acting at an angle of 60° to the vertical, on every foot run of the top. To counteract this pressure props of timber are placed on the outside of the wall at every 6 feet of its length. Each prop is 22 feet long and presses against the underside of a projecting corbel 3 feet from the top of the wall. Determine the pressure on each prop.

7. The pitch of a roof is 60°, its weight is at the rate of 30 lbs. for every foot of surface covered, and it rests on walls that are 28 feet apart. Determine by the graphic method the direction and magnitude of the pressure at the foot of each principal rafter: the rafters being placed at equal intervals of 6 feet.

8. What is meant by "accumulated work" in the case of a moving body?

Suppose a train on the Grand Trunk Railway, weighing 91 tons, starts from Cornwall and, without stopping, runs into the Bonaventure Depôt, and is brought up at the platform without the application of the breaks in consequence of the steam having been shut off at a suitable time. Assuming the distance run to have been 65 miles, the road level and the resistances to be 13 lbs. per ton, what would be the least number of units of work expended in making the run?

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH :—AFTERNOON, 1 TO 3.30.

LINEAR DRAWING.

*Examiner*,.....G. F. ARMSTRONG, MA.., C.E.

1. Divide a straight line 4.75 inches long into fifteen equal parts.

2. Define "Trapezium" and "Trapezoid," and on a diagonal of 3.15 inches construct a trapezium similar to a given trapezium.

3. Describe a square about a circle whose diameter is 6.36 inches, and divide the same circle into five concentric circles, each of equal area.

4. What are the transverse and conjugate axes of an Elipse? Construct an Hyperbola whose abscissa is 3.1 inches, double ordinate 3.64 inches and diameter 4 inches.

5. Given a rectilinear figure of seven sides, it is required to construct a triangle that shall be equal to it.

6. Describe a Cycloid :—the generating circle being of 3.33 inches diameter.

NOTE.—Neatness and accuracy are, in all cases, essential.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

### CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH :—AFTERNOON, 1 TO 3.30.

### PROJECTION.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. What do you understand by "Projection" as a branch of Solid Geometry.?

2. Shew in elevation and plan a right line 3·5 inches long, when it is parallel to the vertical and at an angle of 70° to the horizontal plane.

3. Explain and illustrate what is meant by "simple" and "compound' angles.

4. A plane is 3 inches square: one diagonal is at 45° to the horizontal and 60° to the vertical plane, while the other is parallel to the horizontal plane of projection. Exhibit the plane in plan and elevation.

5. A cube of 2 inches side rests on one of its solid angles and has one diagonal of the base at 50° to the horizontal and the other at right angles to the vertical. Draw the horizontal and vertical projections of the solid, and shew the development of its surface.

6. The base of a pyramid is an equilateral triangle of 2·52 inch side, and each of the long edges of the solid is 3·72 inches. The pyramid is placed with one of the edges of the base at an angle of 45° to the vertical, while its axis is at 25° to the horizontal. A plane cuts the pyramid transversely: entering at a point on one of the long edges, 2·13 inches from the base, it passes out at two points, equidistant from the base, on the two remaining long edges and 1·38 inches perpendicularly below the point of entry. Exhibit both projections of the solid, and determine the true shape of the section made by the cutting plane.

NOTE.—Neatness and accuracy are, in all cases, essential.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH: AFTERNOON, 1 TO 3.30.

PERSPECTIVE.

*Examiner*, .....G. F. ARMSTRONG, M.A., C.E.

1. What do you understand by Perspective as a branch of Projection? Discuss the physical laws upon which the system is founded.

2. Define "Point of sight"—"Picture plane"—"Picture line"—and shew also how to determine the points of distance when the position of the centre of vision and the picture plane are given.

3. Draw the perspective projection of a rectilinear frame of timber, 8 feet high and 3 feet broad, placed 4 feet within the picture and a similar distance on the right of the spectator. The timber out of which the frame is constructed is of the uniform scantling of 9 inches square. The frame is placed vertically, and has its longer side parallel to the picture plane.

4. A boy is flying a kite which is 3 feet high and has a tail 15 feet long. The top of the kite is at an altitude of 25 feet from the ground and at a distance of ten feet on the left of the spectator. The kite is sailing at an angle of 15° to the vertical, and the tail makes an angle of 25° with the position of the former. Shew the object in perspective, assuming that it is in such a position as only to exhibit an edge view to the spectator.

5. A St. Andrew's Cross, wrought out of timber 6 inches square, and the arms of which are 4 feet long, lies on the horizontal with one of its feet parallel to the picture plane at a distance of 7 feet to the left of the spectator. Exhibit the solid in perspective.

6. Explain the terms and illustrate the use of "vanishing points" and "measuring point." Shew, also. in perspective, a block of stone 1.75 feet square and 4 feet long: one end being at an angle of 20° to the picture plane, and the position of the spectator being 3 feet 6 inches on the right of the point in which the solid meets the same plane.

NOTE.—In all the foregoing prolbems the height of the spectator's eye is assumed to be 5 feet 6 inches, and his distance from the plane of the picture 6 feet.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH:—AFTERNOON, 3.30 TO 6.

HARBOURS AND LIGHTHOUSES.

[CONSTRUCTION.]

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Mention some general considerations that would guide you in making a suitable design for the ground plan of a Harbour.

2. What is the reductive power of a Harbour, and how may it be estimated?

3. Describe a Slip and a Graving dock, and compare their relative advantages.

4. Discuss the uses of Timber and Iron as materials in the construction of marine works, and describe any methods of protecting the former from the attacks of marine animals with which you may be acquainted.

5. What are the best methods of dressing and assembling masonry in sea works? State also what you know of the use of Concrete and Béton blocks.

6. Discuss the use of the screw as adapted to Moorings and Piles.

7. What is the best form, and material for a Lighthouse-tower in an exposed situation, and why?

8. How many systems of illuminating a lighthouse are you acquainted with, and what are their leading principles?

9. Explain the following:—"Fender"—"Send"—"Mitre-post"—"Loose"—"Backwater"—"Gridiron"—"Pierre Perdu"—"Caisson"—"Holophote."

NOTE.—Each answer should, as far as possible, be illustrated by freehand sketches, for which extra credit will be given.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

CHRISTMAS EXAMINATIONS, 1872.

THURSDAY, DECEMBER 19TH :—AFTERNOON, 2 TO 5.

USE OF THE BLOWPIP, AND ASSAYING.

## SECOND YEAR.

*Examiner*.....B. J. HARRINGTON, B.A., PH D.

1. Describe the application of Nitrate of Cobalt in the detection of some of the metallic oxides.

2. What are the objects of heating substances upon charcoal?

3. Give a simple method for the detection of Chlorine before the blowpipe.

4. By what blowpipe tests can you readily distinguish Apatite from Actinolite?

5. Give the characteristic colorations imparted to Borax beads by any six of the metallic Oxides.

6. Describe the fire-assay for Gold of an Auriferous Mispickel.

7. What are some of the precautions necessary in making a scorification assay for Silver when the ore contains a large quantity of Zinc?

8. Give two methods of Copper assay, stating the limits of their application.

9. Determine with the blowpipe the composition of the substances exhibited.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

CHRISTMAS EXAMINATIONS, 1872.

THURSDAY, DECEMBER 19TH :—AFTERNOON, 2 TO 5.

MINING AND METALLURGY.

## THIRD YEAR.

*Examiner*.....B. J. HARRINGTON, B.A., PH. D.

1. Describe some of the principal operations involved in Hydraulic Mining and Sluicing.

2. A lode with an underlie of 75° runs parallel with an adjoining valley. The outcrop is 250 feet above the bottom of the valley, the horizontal distance being a quarter of a mile. The lode consists of copper pyrites in a gangue of quartz, and has a thickness of two feet, its foot-wall being a compact quartzite, and its hanging-wall a crumbling slate. What do you consider the best method of working it, including timbering, draining, &c.

3. What are the respective advantages of Underhand and Overhand Stoping ?

4. Give the composition of Nitro-Glycerine, Dynamite, Dualin and Gun Cotton.

5. Describe the construction of an ordinary Blast Furnace.

6. In smelting iron ores, what is the general composition of the slags produced ?

7. Explain the production of wrought from cast iron by puddling.

8. Describe the Bessemer process for the manufacture of steel.

# McGILL COLLEGE, MONTREAL.

## EXHIBITION EXAMINATIONS, 1872.

## THE SCOTT EXHIBITION.

### MATHEMATICS, ENGINEERING AND SURVEYING, ENGLISH, ZOOLOGY.

### SURVEYING, LEVELLING AND DRAWING.

NOVEMBER 7TH:—MORNING, 9 TO 12.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Describe briefly the method of conducting a Trigonometrical Survey, and the principal points to be attended to, in the order of their importance, to ensure a correct result.

2. Explain what is meant by a "Base of Verification": and give a brief account of the method of measuring a Base Line with which you are best acquainted.

3. How is the Theodolite superior to the Sextant in measuring the angle between two places of different elevation?

4. Let P be the centre of a station, S a satellite station at 20 feet distance, from which the angles P S A, P S B are observed, and found to be P S A= 80°, and P S B=210°. Given also P A=2500 feet, and P B=3000 feet. Find the value of the angle A P B.

5. State the different instruments used in Levelling, and the class of operations to which each method of Levelling is suitable.

6. Assuming the mean diameter of the earth to be 7916 miles, show that the effect of curvature at 1 mile distance is 8·004 inches, or nearly the square of the distance in chains divided by 800.

7. Draw a field bounded by straight lines, in the shape of an irregular star of not less than five points, and with a parallel ruler reduce the figure geometrically, either to a quadrilateral or triangle, facilitating the calculation of its area. Number any new lines you draw, in order, 1, 2, 3, &c.

8. A court-yard 200 feet × 150 feet, is surrounded by a low, flat-roofed range of sheds 20 feet wide and 12 feet high, except on one side, in the centre of which there is an opening 20 feet wide. At the angle nearest the observer, a flat-roofed tower 30 feet square, with its outer sides flush with the outer walls of the sheds, rises to a height of 60 feet. Represent such a plain building in isometrical perspective. Attach or refer to a scale.

9. Construct geometrically a scale of 17 feet to 2 inches, and explain the principle of a diagonal scale.

# McGILL COLLEGE, MONTREAL.

## EXHIBITION EXAMINATIONS, 1872.

## SCOTT EXHIBITION.

### MATHEMATICS, ENGINEERING AND SURVEYING, ENGLISH, ZOOLOGY.

### ENGINEERING.

NOVEMBER 9TH:—AFTERNOON, 1 TO 4.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Mention some of the circumstances which would principally guide you in adopting stone, brick, timber, or iron in constructing Bridges and Viaducts.

2. How are Concrete and Béton made? and state some of their applications and uses. What are your views as to the best mode of laying Concrete in foundation trenches?

3. What are the best materials to employ for forming Embankments? Specify those in which the least settlement takes place, and state what per-centage you would allow for settlement in your estimates in the different materials employed.

4. State which are the best and which are the most difficult soils to form foundations on, and state the means usually employed in each case to insure a firm foundation.

5. Name the principal stones employed in building, under the following heads:—

1. Silicious. 2. Argillaceous. 3. Calcareous. 4. Stratified. 5. Unstratified.

6. Describe the characteristic qualities of good Bricks in the following particulars, viz.: As regards shape, sound when struck, appearance presented when broken, their absorption of water as compared with their weight, and the crushing load per square inch capable of being resisted.

7. Given two specimens of recent fracture of two pieces of Cast Iron, one presenting a crystalline, white, and radiated appearance, the other a granulated and grey appearance with some metallic lustre, what qualities would you expect in each of these castings, and for what particular purposes should you select one in preference to the other.

8. Mention some of the characteristics of coasts, the exposures of which are much affected by the Tides.

9. Explain the expression *profile of conservancy*, and state what points require attention in order to obviate underwashing in the case of a wall exposed to the action of the sea.

# McGILL COLLEGE, MONTREAL.

## Faculty of Medicine.

CHRISTMAS EXAMINATIONS, 1872.

SATURDAY, DECEMBER 14TH:—9 A.M. TO 12.

ELEMENTARY BOTANY.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. What are Cellular Structures as distinguished from Vascular? Give examples.

2. Describe Prosenchymatous Tissue, with examples.

3. What are Spiral Vessels? State the parts in which they occur, and heir use.

4. Explain the relations of Carbonic Acid and Ammonia to the nutrition the plant.

5. Name the Amylaceous and Albuminous substances contained in the lants, and state their relations to the nutrition of the plant.

6. Explain the structure and functions of the Parenchyma and Stomata of the leaf.

7. Describe the Endogenous and Acrogenous stems.

8. Explain the terms Pentastichous, Pinnate, Internode, Rhizoma, as applied to leaves and stems.

9. Explain the terms Cormophyte, Phaenogamous, Epiphyte, as used in Botany.

10. What are Raphides and Chorophyll, and their uses?

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

THURSDAY, APRIL 3RD:—MORNING, 9 TO 12.

GREEK.—HOMER.—ILIAD, BOOK VI.

### FIRST YEAR.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Ὣς φάτο· τῷ δ' ἄρα θυμὸν ἐνὶ στήθεσσιν ὄρινεν.
καὶ δή μιν τάχ' ἔμελλε θοὰς ἐπὶ νῆας Ἀχαιῶν
δώσειν ᾧ θεράποντι καταξέμεν· ἀλλ' Ἀγαμέμνων
ἀντίος ἦλθε θέων, καὶ ὁμοκλήσας ἔπος ηὔδα·
Ὦ πέπον, ὦ Μενέλαε, τίη δὲ σὺ κήδεαι αὕτως
ἀνδρῶν; ἦ τοι ἄριστα πεποίηται κατὰ οἶκον
πρὸς Τρώων· τῶν μήτις ὑπεκφύγοι αἰπὺν ὄλεθρον,
χεῖράς θ' ἡμετέρας· μηδ' ὄντινα γαστέρι μήτηρ
κοῦρον ἐόντα φέροι, μηδ' ὃς φύγοι· ἀλλ' ἅμα πάντες
Ἰλίου ἐξαπολοίατ' ἀκήδεστοι καὶ ἄφαντοι.
Ὣς εἰπὼν ἔτρεψεν ἀδελφειοῦ φρένας ἥρως,
αἴσιμα παρειπών. ὁ δ' ἀπὸ ἕθεν ὦσατο χειρὶ
ἥρῳ Ἄδρηστον· τὸν δὲ κρείων Ἀγαμέμνων
οὖτα κατὰ λαπάρην· ὁ δ' ἀνετράπετ'· Ἀτρείδης δὲ
λὰξ ἐν στήθεσι βάς, ἐξέσπασε μείλινον ἔγχος.

(B) Ὣς ἔφατ' εὐχομένη· ἀνένευε δὲ Παλλὰς Ἀθήνη.
Ὣς αἱ μέν ῥ' εὔχοντο Διὸς κούρῃ μεγάλοιο·
Ἕκτωρ δὲ πρὸς δῶμα τ' Ἀλεξάνδροιο βεβήκει,
Καλά, τά ῥ' αὐτὸς ἔτευξε σὺν ἀνδράσιν, οἳ τότ' ἄριστοι
Ἦσαν ἐνὶ Τροίῃ ἐριβώλακι τέκτονες ἀνδρες·
Οἵ οἱ ἐποίησαν θάλαμον καὶ δῶμα καὶ αὐλὴν
Ἐγγύθι τε Πριάμοιο καὶ Ἕκτορος ἐν πόλει ἄκρῃ.
Ἔνθ' Ἕκτωρ εἰσῆλθε Διὶ φίλος· ἐν δ' ἄρα χειρὶ
Ἔγχος ἔχ' ἑνδεκάπηχυ· πάροιθε δὲ λάμπετο δουρὸς
Αἰχμὴ χαλκείη, περὶ δὲ χρύσεος θέε πόρκης.
Τὸν δ' εὗρ' ἐν θαλάμῳ περικαλλέα τεύχε' ἕποντα,
Ἀσπίδα καὶ θώρηκα καὶ ἀγκύλα τόξ' ἀφόωντα·
Ἀργείη δ' Ἑλένη μετ' ἄρα δμωῆσι γυναιξὶν
Ἧστο, καὶ ἀμφιπόλοισι περικλυτὰ ἔργα κέλευεν.
Τὸν δ' Ἕκτωρ νείκεσσεν ἰδὼν αἰσχροῖς ἐπέεσσιν·
Δαιμόνι', οὐ μὲν καλὰ χόλον τόνδ' ἔνθεο θυμῷ.
Λαοὶ μὲν φθινύθουσι περὶ πτόλιν αἰπύ τε τεῖχος
Μαρνάμενοι· σέο δ' εἵνεκ' ἀὐτή τε πτόλεμός τε
Ἄστυ τόδ' ἀμφιδέδηε· σὺ δ' ἂν μαχέσαιο καὶ ἄλλῳ,
Ὅντινά που μεθιέντα ἴδοις στυγεροῦ πολέμοιο·
Ἀλλ' ἄνα, μὴ τάχα ἄστυ πυρὸς δηΐοιο θέρηται.

(C) Ὣς εἰπὼν οὖ παιδὸς ὀρέξατο φαίδιμος Ἕκτωρ.
ἀψ δ' ὁ πάϊς πρὸς κόλπον ἐϋζώνοιο τιθήνης
ἐκλίνθη ἰάχων, πατρὸς φίλου ὄψιν ἀτυχθείς,
ταρβήσας χαλκόν τ' ἠδὲ λόφον ἱππιοχαίτην,
δεινὸν ἀπ' ἀκροτάτης κόρυθος νεύοντα νοήσας·
ἐκ δ' ἐγέλασσε πατήρ τε φίλος καὶ πότνια μήτηρ.
αὐτίκ' ἀπὸ κρατὸς κόρυθ' εἵλετο φαίδιμος Ἕκτωρ,
καὶ τὴν μὲν κατέθηκεν ἐπὶ χθονὶ παμφανόωσαν·
αὐτὰρ ὅγ' ὃν φίλον υἱὸν ἐπεὶ κύσε, πῆλέ τε χερσίν,
εἶπεν ἐπευξάμενος Διί τ' ἄλλοισιν τε θεοῖσιν·
Ζεῦ, ἄλλοι τε θεοί, δότε δὴ καὶ τόνδε γενέσθαι
παῖδ' ἐμόν, ὡς καὶ ἐγώ περ, ἀριπρεπέα Τρώεσσιν,
ὧδε βίην τ' ἀγαθόν, καὶ Ἰλίου ἶφι ἀνάσσειν·
καί ποτέ τις εἴπῃσι, πατρὸς δ' ὅγε πολλὸν ἀμείνων!
ἐκ πολέμου ἀνιόντα· φέροι δ' ἔναρα βροτόεντα,
κτείνας δῃΐον ἄνδρα, χαρείη δὲ φρένα μήτηρ.

2. Explain carefully the following constructions:—(*a*) *ἀφνειὸς βιότοιο.* (*b*) *πυρὸς δηίοιο θέρηται.* (*c*) *χαρείη δὲ φρένα μήτηρ.* (*d*) *ἐπὴν τὰ πρῶτα γένηται.* (*e*) *ἵππῳ γὰρ οἱ ἀτυζομένῳ πεδίοιο.* (*f*) *ἐνάρων ἐπιβαλλόμενος.*

3. Write down the *Nom. Sing.* of the following and decline them:—*κόρυθος, δουρός, κρατός, στήθεσι, κληῖδι, εὐρέα, ὀίεσσιν, χήτει.*

4. Distinguish between the following as to their meaning:—*κράτος, κρατός. θέων, θεῶν. φῶς, φῶς. ἀνα, ἀνά,* and *ἀν. εἶπε, εἰπέ. ὁ πόσις, ἡ πόσις. ὁ οὐδός, ἡ οὐδός. εἷς, εἷς,* and *εἰς.*

5. Parse the following verbs:—*μεθίης, γόον, κατέδυ, πῆλε, χαρείη, ὀρέξατο, ἀνώγει, ἀπόερσε, ἐπιπλώς, χάνοι, πίησθα, οὗτα.*

6. Give the Attic equivalents of:—*φάν, δόμοιο, βείω, καταξέμεν, ξεστῇς, κάρη, εὖτε, κέν.*

7. Give the etymology and meaning of:—*πέπον, κοῦρον, λάξ, γλαυκῶπις, πυμάτῃ, φέριστε, ἐξοχον, ξεινήια, πόσις, νήπιον.*

8. (*a*) Name the metre of the Iliad and write down the scale. (*b*) Scan the last five verses of ext. (A) and account for the quantity of the ultimate in the words *ἀπό,* and *κατά,* as there used.

9. (*a*) What is meant by Augment and Reduplication, and what are they used to denote? (*b*) With what Moods are *εἰ* and *ἐὰν* severally used? (*c*) Write down the Aorist and Future (1st Sing.) of:—*βούλομαι, ἐλαύνω, διαφθείρω, εὑρίσκω, φέρω.*

10. Write an account of Homer and of the Homeric Poems.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

THURSDAY, APRIL 3RD:—MORNING, 9 TO 12.

### GREEK.—EURIPIDES, MEDEA.

*Examiners* ..... ..... { REV. GEORGE CORNISH, LL.D. / REV. GEORGE WEIR, M.A.

1. Translate:—

(A) ΠΑ. ἠκουσά του λέγοντος, οὐ δοκῶν κλύειν,
πεσσοὺς προσελθὼν, ἔνθα δὴ παλαίτατοι
θάσσουσι, σεμνὸν ἀμφὶ Πειρήνης ὕδωρ,
ὡς τούσδε παῖδας γῆς ἐλᾶν Κορινθίας
ξὺν μητρὶ μέλλοι τῆσδε κοίρανος χθονὸς
Κρέων· ὁ μέντοι μῦθος εἰ σαφὴς ὅδε
οὐκ οἶδα· βουλοίμην δ' ἂν οὐκ εἶναι τάδε.
ΤΡ. καὶ ταῦτ' Ἰάσων παῖδας ἐξανέξεται
πάσχοντας, εἰ καὶ μητρὶ διαφορὰν ἔχει;
ΠΑ. παλαιὰ καινῶν λείπεται κηδευμάτων,
κοὐκ ἔστ' ἐκεῖνος τοῖσδε δώμασιν φίλος.
ΤΡ. ἀπωλόμεσθ' ἄρ', εἰ κακὸν προσοίσομεν
νέον παλαιῷ, πρὶν τόδ' ἐξηντλημένον.
ΠΑ. ἀτὰρ σύ γ', οὐ γὰρ καιρὸς εἰδέναι τάδε
δέσποιναν, ἡσύχαζε καὶ σίγα λόγον.
ΤΡ. ὦ τέκν', ἀκούεθ' οἷος εἰς ὑμᾶς πατήρ;
ὄλοιτο μὲν μή· δεσπότης γάρ ἐστ' ἐμός·
ἀτὰρ κακός γ' ὢν ἐς φίλους ἀλίσκεται.
ΠΑ. τίς δ' οὐχὶ θνητῶν; ἄρτι γιγνώσκεις τόδε,
ὡς πᾶς τις αὑτὸν τοῦ πέλας μᾶλλον φιλεῖ,
οἱ μὲν δικαίως, οἱ δὲ καὶ κέρδους χαριν;
εἰ τούσδε γ' εὐνῆς οὕνεκ' οὐ στέργει πατήρ.

(B) ΙΑ. αἰνῶ, γύναι, τάδ', οὐδ' ἐκεῖνα μέμφομαι·
εἰκὸς γὰρ ὀργὰς θῆλυ ποιεῖσθαι γένος,
γάμους παρεμπολῶντος ἀλλοίους, πόσει.
ἀλλ' ἐς τὸ λῷον σὸν μεθέστηκεν κέαρ,
ἔγνως δὲ τὴν νικῶσαν ἀλλὰ τῷ χρόνῳ
βουλήν· γυναικὸς ἔργα ταῦτα σώφρονος.
ὑμῶν δὲ, παῖδες, οὐκ ἀφρόντιστως πατὴρ
πολλὴν ἐθηκε σὺν θεοῖς προμηθίαν·
οἶμαι γὰρ ὑμᾶς τῆσδε γῆς Κορινθίας
τὰ πρῶτ' ἔσεσθαι ξὺν κασιγνήτοις ἔτι.
ἀλλ' αὐξάνεσθε· τἄλλα δ' ἐξεργάζεται
πατήρ τε καὶ θεῶν ὅστις ἐστὶν εὐμενής.

ἴδοιμι δ' ὑμᾶς εὐτραφεῖς ἡβης τέλος
μολόντας, ἐχθρῶν τῶν ἐμῶν ὑπερτέρους.
αὔτη, τί χλωροῖς δακρύοις τέγγεις κόρας,
στρέψασα λευκὴν ἔμπαλιν παρηίδα,
κοὐκ ἀσμένη τόνδ' ἐξ ἐμοῦ δέχει λόγον;

(C) ΧΟ. ἰὼ Γᾶ τε καὶ παμφαὴς
ἀκτὶς Ἀελίου, κατίδετ' ἴδετε τὰν
ὀλομέναν γυναῖκα, πρὶν φοινίαν
τέκνοις προσβαλεῖν χέρ' αὐτοκτόνον·
τᾶς σᾶς γὰρ ἀπὸ χρυσέας γονᾶς
ἔβλαστεν, θεῶν δ' αἵματι πίτνειν
φόβος ὑπ' ἀνέρων.
ἀλλά νιν, ὦ φάος διογενὲς, κάτειρ-
γε, κατάπαυσον, ἔξελ' οἴκων τάλαι-
ναν φονίαν τ' Ἐρινὺν ὑπ' ἀλαστόρων.
μάταν μόχθος ἔρρει τέκνων,
μάταν ἄρα γένος φίλιον ἔτεκες, ὦ
κυανεᾶν λιποῦσα Συμπληγάδων
πετρᾶν ἀξενωτάταν ἐσβολάν.
δειλαία, τί σοι φρενῶν βαρὺς
χόλος προσπίτνει, καὶ δυσμενὴς
φόνος ἀμείβεται;
χαλεπὰ γὰρ βροτοῖς ὁμογενῆ μιά-
σματ' ἐπὶ γαῖαν αὐτοφόνταις ξυνῳ-
δὰ θεόθεν πίτνοντ' ἐπὶ δόμοις ἀχη.

2. Explain the meaning of the following:—(1) *πεσσοὺς προσελθών.* (2) *κυανέας Συμπληγάδας.* (3) *ἀμφιπύλου μελάθρου.* (4) *πέμπειν ξυμβολά.* (5) *πομπαῖος ἄνα.* (6) *τένοντ' ἐς ὀρθὸν ὄμμασιν σκοπουμένη.* (7) *ἐγγὺς ἀρκύων ξίφους.* (8) *πρὸς βαλβῖδα βίου.*

3. Explain the construction of the following:—(*a*) *του λέγοντος.* (*b*) *γάμους παρεμπολῶντος.* (*c*) *τὰ πρῶτ' ἐσεσθαι.* (*d*) *δόξης ἐσφάλην εὐαγγέλου.* (*e*) *ἢ χρῆν μετεῖναι τῶνδε τῶν βουλευμάτων.* (*f*) *εἶδον ὄμμα νιν ταυρουμένην.*

(4) Parse the following words:—*ἄραι, κυανεᾶν, χρυσοῦς, ἴει, ἐκτύπει, ἠνέσχετο, ἤσθημεν, θρέψωσι, κάτει, παριέμεσθα, θίγῃ, ἄραρε.*

5. Derive, and give the meaning of:—*αἰσυμνᾷ, ἐξαντληκέναι, λῳστα, δέργμα, πανώλης, ἕκατι, ἀρτίφρων, ἐχεγγύους, κίβδηλος, ἄζυγες.*

6. *πρὸς ἡδονὴν λόγους. ἐμαυτῇ διὰ λόγων ἀφικόμην. πρὸς γῆρας οὐκ εὔδοξον. μὴ πρὸς ἰσχύος χάριν*:—Explain the import of the prepositions. (*b*) *παίδων ὑπ' αὐτοῦ*:—Why has the preposition no accent? (*c*) *ἀτιμάσας ἔχει*:—explain this idiom.

7. State and illustrate the use of the particles *οὐ μὴ* with the *Fut. Ind.* and *Aor. Subj.*, respectively.

8. Distinguish between :—*εἰ καὶ* and *καὶ εἰ*. *οὖν* and *οὖν*. *παρὰ* and *πάρα*. *σίγα* and *σιγᾷ*. *συμφορὰ* and *σύμφορα*. *κάλων* and *καλῶν*. *θράσος* and *θάρσος*. *οἷος*, *οἷος*, and *οἰός*. *οἷος εἰμὶ ποιεῖν* and *οἰός τε εἰμὶ ποιεῖν*. *γαμεῖν* and *γαμεῖσθαι*.

9. (*a*) Name the metre, and write down the scheme of ext. (A). (*b*) Scan the first six verses of the same ext. (*c*) Point out the Doric forms in ext. (C) and give their Attic equivalents.

10. Decline :—*ἧπατος*, *γέλων*, *κλῆδα*, *σφέ*, *σάρκες*, *ἀλγηδόσι*.

# McGILL UNIVERSITY, MONTREAL.

## B.A. ORDINARY EXAMINATIONS, 1873.

MONDAY, APRIL 7TH:—MORNING, 9 TO 12.

GREEK.—{ AESCHINES.—CONTRA CTESIPHONTEM.
AESCHYLUS.—PROMETHEUS VINCTUS.

*Examiners*,..... { REV. GEORGE CORNISH, LL.D.
REV. GEORGE WEIR, M.A.

1.* Translate:—

(A) Ἀκούετε, ὦ Ἀθηναῖοι, ὅτι ὁ μὲν νομοθέτης κελεύει ἐν τῷ δήμῳ ἐν Πυκνὶ τῇ ἐκκλησίᾳ ἀνακηρύττειν τὸν ὑπὸ τοῦ δήμου στεφανούμενον, ἄλλοθι δὲ μηδαμοῦ, Κτησιφῶν δὲ ἐν τῷ θεάτρῳ, οὐ τοὺς νόμους μόνον ὑπερβὰς, ἀλλὰ καὶ τὸν τόπον μετενεγκὼν, οὐδὲ ἐκκλησιαζόντων Ἀθηναίων, ἀλλὰ τραγῳδῶν ἀγωνιζομένων καινῶν, οὐδ' ἐναντίον τοῦ δήμου, ἀλλ' ἐναντίον τῶν Ἑλλήνων, ἵν' ἡμῖν συνειδῶσιν, οἷον ἄνδρα τιμῶμεν. οὕτω τοίνυν περιφανῶς παράνομα γεγραφὼς, παραταχθεὶς μετὰ Δημοσθένους ἐποίσει τέχνας τοῖς νόμοις· ἃς ἐγὼ δηλώσω καὶ προερῶ ὑμῖν, ἵνα μὴ λάθητε ἐξαπατηθέντες. οὗτοι γὰρ, ὡς μὲν οὐκ ἀπαγορεύουσιν οἱ νόμοι τὸν ὑπὸ τοῦ δήμου στεφανούμενον μὴ κηρύττειν ἔξω τῆς ἐκκλησίας, οὐχ ἕξουσι λέγειν, οἴσουσι δὲ εἰς τὴν ἀπολογίαν τὸν Διονυσιακὸν νόμον, καὶ χρήσονται τοῦ νόμου μέρει τινὶ κλέπτοντες τὴν ἀκρόασιν ὑμῶν, καὶ παρέξονται νόμον οὐδὲν προσήκοντα τῇ γραφῇ τῇδε, καὶ λέξουσιν, ὡς εἰσὶ τῇ πόλει δύο νόμοι κείμενοι περὶ τῶν κηρυγμάτων, εἷς μὲν, ὃν νῦν ἐγὼ παρέχομαι, διαρρήδην ἀπαγορεύων τὸν ὑπὸ τοῦ δήμου στεφανούμενον μὴ κηρύττεσθαι ἔξω τῆς ἐκκλησίας, ἕτερον δ' εἶναι νόμον φήσουσιν ἐναντίον τούτῳ, τὸν δεδωκότα ἐξουσίαν ποιεῖσθαι τὴν ἀνάρρησιν τοῦ στεφάνου τραγῳδοῖς ἐν τῷ θεάτρῳ, ἐὰν ψηφίσηται ὁ δῆμος· κατὰ δὴ τοῦτον τὸν νόμον φήσουσι γεγραφέναι τὸν Κτησιφῶντα.

(B) Ἀλλ' ἐπειδὴ πάσῃ τῇ δυνάμει Δαρεῖος κατεβεβήκει, ὁ δ' Ἀλέξανδρος ἦν ἀπειλημμένος ἐν Κιλικίᾳ πάντων ἐνδεὴς, ὡς ἔφησθα σὺ, αὐτίκα μάλα δ' ἤμελλεν, ὡς ἦν ὁ παρὰ σοῦ λόγος, συμπατηθήσεσθαι ὑπὸ τῆς Περσικῆς ἵππου, τὴν δὲ σὴν ἀηδίαν ἡ πόλις οὐκ ἐχώρει καὶ τὰς ἐπιστολὰς, ἃς ἐξητημένος ἐκ τῶν δακτύλων περιήεις, ἐπιδεικνύων τισὶ τὸ ἐμὸν πρόσωπον ὡς ἐκπεπληγμένου καὶ ἀθυμοῦντος, καὶ χρυσόκερων ἀποκαλῶν καὶ κατεστέφθαι φάσκων, εἴ τι πταῖσμα συμβήσεται Ἀλεξάνδρῳ, οὐδ' ἐνταῦθα ἔπραξας οὐδὲν, ἀλλ εἰς τινα καιρὸν ἀνεβάλλου καλλίω. ὑπερβὰς τοίνυν ἅπαντα ταῦτα ὑπὲρ τῶν νυνὶ καθεστηκότων λέξω. Λακεδαιμόνιοι μὲν καὶ τὸ ξενικὸν ἐπέτυχον μάχῃ καὶ διέφθειραν τοὺς περὶ Κόρραγον στρατιώτας, Ἠλεῖοι δ' αὐτοῖς συμμετεβάλοντο καὶ Ἀχαιοὶ πάντες πλὴν Πελληναίων καὶ Ἀρκαδία πᾶσα πλὴν Μεγάλης πόλεως, αὕτη δὲ ἐπολιορκεῖτο καὶ καθ' ἑκάστην ἡμέραν ἐπίδοξος ἦν ἁλῶναι, ὁ δ' Ἀλέξανδρος ἔξω τῆς ἄρκτου καὶ τῆς οἰκουμένης ὀλίγου δεῖν πάσης μεθειστήκει, ὁ δὲ Ἀντίπατρος πολὺν χρόνον συνῆγε στρατόπεδον, τὸ δ' ἐσόμενον ἀδηλον ἦν. ἐνταῦθ' ἡμῖν ἀπόδειξιν ποίησαι, Δημόσθενες, τί ποτ' ἦν ἃ ἔπραξας ἢ τί ποτ' ἦν ἃ ἔλεγες· καὶ εἰ βούλει, παραχωρῶ σοι τοῦ βήματος, ἕως ἂν εἴπῃς.

2.* When was this oration delivered? State the leading arguments in it.

3.* Write explanatory notes on:—(1) *προέδροι* and *ἐπιστάτης*. (2) *χειροτονία*. (3) *εἰσαγγελία*. (4) *κήρυγμα*. (5) *πρυτάνεις*. (6) *Αἱ τῶν παρανόμων γραφαί*. (7) *ὑπεύθυνοι*. (8) *λογισταὶ* and *εὔθυνοι*. (9) *θεσμοθέται*.

4.* Distinguish between *Αἱρεταὶ ἀρχαι* and *κληρωταί*.

5.* Give a short account of the senate of Five Hundred, the Council of the Areopagus, and the Ecclesia.

6.* Parse the following words, giving the derivation or composition, and the leading tenses of the verbs:—(1) *ὑπερβάς*. (2) *μετενεγκών*. (3) *τραγῳδῶν*. (4) *συνειδῶσιν*. (5) *παραταχθείς*. (6) *διαρρήδην*. (7) *καθεστηκώς*. (8) *καλλίω*.

7. Translate:—

(C) ΩΚ. Ἥκω δολιχῆς τέρμα κελεύθου
διαμειψάμενος πρὸς σέ, Προμηθεῦ,
τὸν πτερυγωκῆ τόνδ' οἰωνὸν
γνώμῃ στομίων ἄτερ εὐθύνων·
ταῖς σαῖς δὲ τύχαις, ἴσθι, συναλγῶ.
τό τε γάρ με, δοκῶ, ξυγγενὲς οὕτως
ἐσαναγκάζει,
χωρίς τε γένους οὐκ ἔστιν ὅτῳ
μείζονα μοῖραν νείμαιμ' ἢ σοί.
γνώσει δὲ τάδ' ὡς ἔτυμ', οὐδὲ μάτην
χαριτογλωσσεῖν ἐνι μοι· φέρε γὰρ
σήμαιν' ὅ τι χρή σοι ξυμπράσσειν·
οὐ γάρ ποτ' ἐρεῖς ὡς Ὠκεανοῦ
φίλος ἐστὶ βεβαιότερός σοι.

ΠΡ. ἔα, τί χρῆμα; καὶ σὺ δὴ πόνων ἐμῶν
ἥκεις ἐπόπτης; πῶς ἐτόλμησας, λιπὼν
ἐπώνυμόν τε ῥεῦμα καὶ πετρηρεφῆ
αὐτόκτιτ' ἄντρα, τὴν σιδηρομήτορα
ἐλθεῖν ἐς αἶαν; ἦ θεωρήσων τύχας
ἐμὰς ἀφῖξαι καὶ ξυνασχαλῶν κακοῖς;
δέρκου θέαμα, τόνδε τὸν Διὸς φίλον,
τὸν αὐγκαταστήσαντα τὴν τυραννίδα,
οἵαις ὑπ' αὐτοῦ πημοναῖσι κάμπτομαι.

(D) ΠΡ. Λέξω τορῶς σοι πᾶν ὅπερ χρῄζεις μαθεῖν,
οὐκ ἐμπλέκων αἰνίγματ', ἀλλ' ἁπλῇ λόγῳ,
ὥσπερ δίκαιον πρὸς φίλους οἴγειν στόμα.
πυοὺς βροτοῖς δοτῆρ' ὁρᾷς Προμηθέα.

ΙΩ. ὦ κοινὸν ὠφέλημα θνητοῖσιν φανεὶς,
τλῆμον Προμηθεῦ, τοῦ δίκην πάσχεις τάδε ;
ΠΡ. ἁρμοῖ πέπαυμαι τοὺς ἐμοὺς θρηνῶν πόνους.
ΙΩ. οὔκουν πόροις ἂν τήνδε δωρεὰν ἐμοί ;
ΠΡ. λέγ' ἥντιν' αἰτεῖ· πᾶν γὰρ ἂν πύθοιό μου.
ΙΩ. σήμηνον ὅστις ἐν φάραγγί σ' ὤχμασε.
ΠΡ. βούλευμα μὲν τὸ Διὸν, Ἡφαίστου δὲ χείρ.
ΙΩ. ποινὰς δὲ ποίων ἀμπλακημάτων τίνεις ;
ΠΡ. τοσοῦτον ἀρκῶ σοι σαφηνίσαι μόνον.
ΙΩ. καὶ πρός γε τούτοις τέρμα τῆς ἐμῆς πλάνης
δεῖξον τίς ἔσται τῇ ταλαιπώρῳ χρόνος.
ΠΡ. τὸ μὴ μαθεῖν σοι κρεῖσσον ἢ μαθεῖν τάδε.
ΙΩ. μήτοι με κρύψῃς τοῦθ' ὅπερ μέλλω παθεῖν.
ΠΡ. ἀλλ' οὐ μεγαίρω τοῦδέ σοι δωρήματος.
ΙΩ. τί δῆτα μέλλεις μὴ οὐ γεγωνίσκειν τὸ πᾶν ;
ΠΡ. φθόνος μὲν οὐδείς, σὰς δ' ὀκνῶ θρᾶξαι φρένας.
ΙΩ. μή μου προκήδου μᾶσσον ὡς ἐμοὶ γλυκύ.
ΠΡ. ἐπεὶ προθυμεῖ, χρὴ λέγειν· ἄκουε δή.

8. (*a*) Scan vss. 1–4, and 16–20, of ext. (C). (*b*) Give the proper designation and scale of the metres severally used.

9. (*a*) Explain the formation of the *Attic Future*. (*b*) Parse:—*ἀφῖξαι*, *συνασχαλῶν*, *τοῦ* (vs. 6, D.), *πίθοιο*, *δεῖξον*, *θρᾶξαι*. (*c*) *μὴ οὐ γεγωνίσκειν* :—Explain this usage of *μὴ οὐ*.

10. (*a*) Give the meaning of the following technical terms :—*βρώσιμον*, *χριστόν*, *πιστόν*, *φαρμάκων*, *κατεσκέλλοντο*, *ἐπίπαστα*, *κατάπλαστα*, *εἰσφρητα*, *ὀσφραντά*. (*b*) Write explanatory notes on the following geographical allusions :—(*a*) Ἄτλαντος, ὃς πρὸς ἑσπέρους τόπους ἕστηκε. (*b*) Κολχίδος γᾶς ἐνοικοι παρθένοι. (*c*) παρ' Ὠκεανοῦ πατρὸς ἀσβεστον πόρον. (*d*) ὑβριστὴν ποταμόν. (*e*) Σαλμυδησσία γνάθος ἐχθόξενος ναύταισι, μητρυιὰ νεῶν. (*f*) οἱ σιδηροτέκτονες Χάλυβες.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

MONDAY, APRIL 7TH:—MORNING, 9 TO 12.

GREEK.—AESCHYLUS.—PROMETHEUS VINCTUS.

### THIRD YEAR.

*Examiner*,.....REV. GEORGE CORNISH, LL.D

1. Translate:—

(A) ΚΡ. εἶεν, τί μέλλεις καὶ κατοικτίζει μάτην;
τί τὸν θεοῖς ἔχθιστον οὐ στυγεῖς θεὸν,
ὅστις τὸ σὸν θνητοῖσι προὔδωκεν γέρας;
ΗΦ. τὸ ξυγγενές τοι δεινὸν ἥ θ' ὁμιλία
ΚΡ. ξύμφημ', ἀνηκουστεῖν δὲ τῶν πατρὸς λόγων
οἷον τε πῶς; οὐ τοῦτο δειμαίνεις πλέον;
ΗΦ. ἀεί γε δὴ νηλὴς σὺ καὶ θράσους πλέως
ΚΡ. ἄκος γὰρ οὐδὲν τόνδε θρηνεῖσθαι· σὺ δὲ
τὰ μηδὲν ὠφελοῦντα μὴ πόνει μάτην.
ΗΦ. ὦ ροllὰ μισηθεῖσα χειρωναξία.
ΚΡ. τί νιν στυγεῖς; πόνων γὰρ ὡς ἁπλᾷ λόγῳ
τῶν νῦν παρόντων οὐδὲν αἰτία τέχνη
ΗΦ. ἔμπας τὶς αὐτὴν ἄλλος ὠφελεν λαχεῖν.
ΚΡ. ἅπαντ' ἐπράχθη πλὴν θεοῖσι κοιρανεῖν.
ἐλεύθερος γὰρ οὔτις ἐστὶ πλὴν Διός.
ΗΦ. ἔγνωκα τοῖσδε κοὐδὲν ἀντειπεῖν ἔχω.
ΚΡ. οὔκουν ἐπείξει δεσμὰ τῷδε περιβαλεῖν,
ὡς μή σ' ἐλινύοντα προσδερχθῇ πατήρ;

(B) οὐ δῆτ', ἐπεί με καὶ κασιγνήτου τύχαι
τείρουσ' Ἄτλαντος, ὃς πρὸς ἑσπέρους τόπους
ἕστηκε κίον' οὐρανοῦ τε καὶ χθονὸς
ὦμοιν ἐρείδων, ἄχθος οὐκ εὐάγκαλον.
τὸν γηγενῆ τε Κιλικίων οἰκήτορα
ἄντρων ἰδὼν ὠκτειρα, δάϊον τέρας,
ἑκατογκάρηνον πρὸς βίαν χειρούμενον
Τυφῶνα θοῦρον, πᾶσιν ὃς ἀνέστη θεοῖς,
σμερδναῖσι γαμφηλαῖσι συρίζων φόνον·
ἐξ ὀμμάτων δ' ἠστραπτε γοργωπὸν σέλας,
ὡς τὴν Διὸς τυραννίδ' ἐκπέρσων βίᾳ
ἀλλ' ἦλθεν αὐτῷ Ζηνὸς ἄγρυπνον βέλος
κοταιβάτης κεραυνὸς ἐκπνέων φλόγα,
ὃς αὐτὸν ἐξέπληξε τῶν ὑψηγόρων
κομπασμάτων. φρένας γὰρ εἰς αὐτὰς τυπεὶς

ἐφεψαλώθη κἀξεβροντήθη σθένος.
καὶ νῦν ἀχρεῖον καὶ παράορον δέμας
κεῖται στενωποῦ πλησίον θαλασσίου
ἰπούμενος ῥίζαισιν Αἰτναίαις ὑπο·
κορυφαῖς δ' ἐν ἄκραις ἥμενος μυδροκτυπεῖ
Ἥφαιστος, ἔνθεν ἐκραγήσονταί ποτε
ποταμοὶ πυρὸς δάπτοντες ἀγρίαις γνάθοις
τῆς καλλικάρπου Σικελίας λευρὸν γύας·
τοιόνδε Τυφὼς ἐξαναζέσ_ι χόλον
θερμοῖς ἀπλάτου βέλεσι πυρπνόου ζάλης,
καίπερ κεραυνῷ Ζηνὸς ἠνθρακωμένος.
σὺ δ' οὐκ ἄπειρος, οὐδ' ἐμοῦ διδασκάλου
χρῄζεις· σεαυτὸν σῷζ' ὅπως ἐπίστασαι·
ἐγὼ δὲ τὴν παροῦσαν ἀντλήσω τυχην,
ἕς τ' ἂν Διὸς φρόνημα λωφήσῃ χόλου.

(C) ΠΡ. ὡς τοίνυν ὄντων τῶνδέ σοι μαθεῖν πάρα.
ΙΩ. πρὸς τοῦ τύραννα σκῆπτρα συληθήσεται;
ΠΡ. αὐτὸς πρὸς αὑτοῦ κενοφρόνων βουλευμάτων.
ΙΩ. ποίῳ τρόπῳ; σήμηνον, εἰ μή τις βλάβη.
ΠΡ. γαμεῖ γάμον τοιοῦτον ᾧ ποτ' ἀσχαλᾷ.
ΙΩ. θέορτον, ἢ βρότειον; εἰ ῥητὸν, φράσον.
ΠΡ. τί δ' ὄντιν'; οὐ γὰρ ῥητὸν αὐδᾶσθαι τόδε.
ΙΩ. ἦ πρὸς ἄμαρτος ἐξανίσταται θρόνων;
ΠΡ. ἢ τέξεταί γε παῖδα φέρτερον πατρός.
ΙΩ. οὐδ' ἔστιν αὐτῷ τῆσδ' ἀποστροφὴ τύχης;
ΠΡ. οὐ δῆτα, πλὴν ἐὰν ἐγὼ 'κ δεσμῶν λυθῶ
ΙΩ. τίς οὖν ὁ λύσων σ' ἐστὶν ἄκοντος Διός;
ΠΡ. τῶν σῶν τιν' αὐτὸν ἐκγόνων εἶναι χρεών.
ΙΩ. πῶς εἶπας; ἢ 'μὸς παῖς σ' ἀπαλλάξει κακῶν;
ΠΡ. τρίτος γε γένναν πρὸς δέκ' ἀλλαισιν γοναῖς.

2. In the above extracts explain the construction of:—(*a*) *τῶν λόγων*. (*b*) *ὤφελεν*. (*c*) *θεοῖσι* (A. vs. 15.) (*d*) *τῶν ὑψηγόρων κομπασμάτων*. (*e*) *ὄντων τῶνδε*. (*f*) *τύραννα σκῆπτρα*. (*g*) *κενοφρόνων βουλευμάτων*.

3. Write explanatory notes on:—(1) *τύχαι Ἄτλαντος*. (2) *Τυφῶνα θοῦρον*. (3) *ἰπούμενος*. (4) *ἔνθεν ἐκραγήσονται* * * * *γύας*. (5) *ῥεῖθρον ἠπείρων ὄρον*. (6) *ἐς τε Πυθὼ κἀπὶ Δωδώνης*. (7) *ἀκοιμήτῳ ῥεύματι*. (8) *Σκύθην οἶμον*.

4. State, as accurately as you can, the meaning, and give the derivation of the following words:—*λεωργόν, διαμπάξ, διατόρους, ποταίνιον, πελώρια, ἀρθμόν, πέδοι, παράορος, ἀπλάτου, ἐπηβόλους, ἰότατι, ἀκραγεῖς*.

5. Explain the dialect of the following, and give the commonly received Attic equivalents of them:—*πεδαρσίοις, μᾶσσον, ἁρμοῖ, δᾶ, πωλεύμεναι, ἀλεῦ, ἀχέτας, εἰβομένα*.

6. Parse the following:—*βᾶσαι, πέδοι, φύλαξαι, μνήμοσιν, μολεῖν, γαμεῖ, προσέπτα, ἐκτακείη, ἀκούσαις, σκεδᾷ*. Explain the formation of the last.

7. (*a*) Write down the scheme of the Iambic Senarius, and state the law for the admission of the Anapaest. On what syllables does the Ictus Metricus fall, in the Iambus and other feet, respectively, that are admitted? (*b*) Scan the first five vss. of ext. (C).

8. (*a*) Write a short account of the life and times of Æschylus. (*b*) Name the other plays which he wrote on the legend of Prometheus. (*c*) Enumerate his extant plays.

9. (*a*) Decline:—*κρέας, γονεύς, πειθώ, κάρα*. (*b*) Compare:—*πένης, ἄξιος, ῥᾴδιος, ἄγχι*. (*c*) Give the *Aor.* 2, *Act.*, *Indic. Mood*, of:—*κτείνω, βιόω, γιγνώσκω, δύω, τέκνω*.

10. "The tenses represent the action as *continued*, *completed* or *indefinite*":—Give a scheme of the tenses in illustration of this statement.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 4TH :—MORNING, 9 to 12.

LATIN.—CICERO.—SELECT LETTERS.

## FIRST YEAR.

*Examiner*, . . . . . REV. GEORGE CORNISH, LL.D.

1. Translate, carefully expanding and translating the superscriptions :—

Scripsit a. u. c. 698.

M. CICERO S. D. P. LENTULO PROCOS.

(A) Quae gerantur accipies ex Pollione, qui omnibus negociis non interfuit solum, sed praefuit. Me in summo dolore, quem in tuis rebus capio, maxime scilicet consolatur spes, quod valde suspicor fore ut infringatur hominum improbitas et consiliis tuorum amicorum et ipsa die, quae debilitat cogitationes et inimicorum et proditorum tuorum. Facile secundo loco me consolatur recordatio meorum temporum, quorum imaginem video in rebus tuis. Nam etsi minore in re violatur tua dignitas quam mea adflicta est, tamen est tanta similitudo, ut sperem te mihi ignoscere, si ea non timuerim, quae ne tu quidem umquam timenda duxisti. Sed praesta te eum, qui mihi a teneris, ut Graeci dicunt, unguiculis es cognitus. Illustrabit, mihi crede, tuam amplitudinem hominum iniuria. A me omnia summa in te studia officiaque exspecta: non fallam opinionem tuam.

(B) Scriptae litterae sunt a. u. c. 692.

M. TULLIUS M. F. CICERO S. D. CN. POMPEIO CN. F. MAGNO IMPERATORI.

S. T. E. Q. V. B. E. Ex litteris tuis, quas publice misisti, cepi una cum omnibus incredibilem voluptatem : tantam enim spem ocii ostendisti, quantam ego semper omnibus te uno fretus pollicebar. Sed hoc scito, tuos veteres hostes, novos amicos, vehementer litteris perculsos atque ex magna spe deturbatos iacere. Ad me autem litteras, quas misisti, quamquam exiguam significationem tuae erga me voluntatis habebant, tamen mihi scito incundas fuisse : nulla enim re tam laetari soleo quam meorum officiorum conscientia, quibus si quando non mutue respondetur, apud me plus officii residere facillime patior. Illud non dubito, quin, si te mea summa erga te studia parum mihi adiunxerint, res publica nos conciliatura coniuncturaque sit. Ac ne ignores quid ego in tuis litteris desiderarim, scribam aperte, sicut et mea natura et nostra amicitia postulat. Res eas gessi, quarum aliquam in tuis litteris et nostrae necessitudinis et rei publicae causa gratulationem exspectavi : quam ego abs te praetermissam esse arbitror, quod vererere ne cuius animum offenderes. Sed scito ea, quae nos pro salute patriae gessimus, orbis terrae iudicio ac testimonio comprobari. Quae, quum veneris, tanto consilio tantaque animi magnitudine a me gesta esse cognosces, ut tibi multo majori, quam Africanus, fuit, tamen non multo minorem [me] quam Laelium facile et in re publica et in amicitia adiunctum esse patiare.

(C) Omnino, si quaeris, ludi apparatissimi, sed non tui stomachi: coniecturam enim facio de meo. Nam primum honoris causa in scaenam redierant ii, quos ego honoris causa de scaena decesse arbitrabar. Deliciae vero tuae, noster Aesopus, eius modi fuit, ut ei desinere per omnes homines liceret. Is furare quum coepisset, vox eum defecit in illo loco: *Si sciens fallo.* Quid tibi ego alia narrem? nosti enim reliquos ludos. Quid? ne id quidem leporis habuerunt, quod solent mediocres ludi: apparatus enim spectatio tollebat omnem hilaritatem, quo quidem apparatu non dubito quin animo aequissimo carueris. Quid enim delectationis habent sexcenti muli in Clytaemnestra aut in Equo Troiano creterrarum tria milia aut armatura varia peditatus et equitatus in aliqua pugna? quae popularem admirationem habuerunt, delectationem tibi nullam attulissent. Quod si tu per eos dies operam dedisti Protogeni tuo, dum modo is tibi quidvis potius quam orationes meas legerit, nae tu haud paullo plus quam quisquam nostrum delectationis habuisti. Non enim te puto Graecos aut Oscos ludos desiderasse praesertim quum Oscos ludos vel in senatu vestro spectare possis, Graecos ita non ames, ut ne ad villam quidem tuam via Graeca ire soleas.

2. Give an account of the political events in the career of Pompey and Cicero to which reference is made in ext. (B).

3. Explain the construction of the following:—omnibus negociis. (*b*) consiliis tuorum. (*c*) Omnibus te uno fretus pollicebar. (*d*) Plus officii. (*e*) tibi multo majori. (*f*) Laelium. (*g*) non tui stomachi. (*h*) Artem desinerem.

4. Parse the following verbs and give their principal parts:—lautus, decesse, vererere, perrexi, pareret, fefellerit, aspernabere, interesset, consueris, combussimus, subinvitaras, adamaris.

5. Name the geographical position of:—Cilicia, Brundisium, Aegina, Megara, Corinthus, Malea, Dalmatae, Misenum, Stabiae, Thapsus.

6. Give the derivation and meaning of the following words, and mention the cognate or derived forms of any in English:—lecticula, creterrarum, lepŏris, lepŏris, kalendae, gymnasium, lectiunculis, jurisdictionem, considerare, mehercule, megalensia, sedulo.

7. (*a*) Name the dates, according to our mode of computation, of (1) A. u. c. 703. (2) Pridie Nonas Junias. (3) A. d. III. Kal. Maias. (4) A. d. v. Kal. intercalares priores. (*b*) Name the divisions of the Roman month, and give the derivation of the terms by which they were designated. (*c*) Give an account of the important transaction alluded to in the words *Kal. intercalares priores.*

8. (*a*) Decline in the *singular*:—tellus, genus, servitus, nux, domus; and in the *plural*:—nix, poema, lapis, iter, bos. (*b*) Give the *Gen. Sing.* and *Dat. Plu.* of:—aper, iter, latus, manus, tempus, filia, artus, scurra. (*c*) Decline:—is, quis, uter, idem.

9. Write down *Perf.* and *Supine* of:—do, faveo, tego, parco.

10. What cases do the following words severally take after them:—peritus, potior (*adj.* and *verb*), pudet, interest, ignosco, consulo, utilis, fungor.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

FRIDAY, APRIL 4TH:—MORNING, 9 TO 12.

### LATIN.—TACITUS.—GERMANIA AND AGRICOLA.

*Examiners*,..... { REV. GEORGE CORNISH, LL.D.
REV. GEORGE WEIR, M.A.

1. Translate:—

(A) De minoribus rebus principes consultant, de maioribus omnes, ita tamen ut ea quoque, quorum penes plebem arbitrium est, apud principes prætractentur. coeunt, nisi quid fortuitum et subitum incidit, certis diebus, cum aut inchoatur luna aut impletur; nam agendis rebus hoc auspicatissimum initium credunt. nec dierum numerum, ut nos, sed noctium computant. sic constituunt, sic condicunt: nox ducere diem videtur. illud ex libertate vitium, quod non simul nec ut iussi conveniunt, sed et alter et tertius dies cunctatione coeuntium absumitur. ut turbae placuit, considunt armati. silentium per sacerdotes, quibus tum et coercendi ius est, imperatur. mox rex vel princeps, prout aetas cuique, prout nobilitas, prout decus bellorum, prout facundia est, audiuntur, auctoritate suadendi magis quam iubendi potestate. si displicuit sententia, fremitu aspernantur; sin placuit, frameas concutiunt. honoratissimum adsensus genus est armis laudare.

(B) Faenus agitare et in usuras extendere ignotum; ideoque magis servatur quam si vetitum esset. agri pro numero cultorum ab universis in vices occupantur, quos mox inter se secundum dignationem partiuntur; facilitatem partiendi camporum spatia praebent. arva per annos mutant, et superest ager. nec enim cum ubertate et amplitudine soli labore contendunt, ut pomaria conserant et prata separent et hortos rigent: sola terrae seges imperatur. unde annum quoque ipsum non in totidem digerunt species: hiems et ver et aestas intellectum ac vocabula habent, autumni perinde nomen ac bona ignorantur.

(C) Consularium primus Aulus Plautius praepositus ac subinde Ostorius Scapula, uterque bello egregius; redactaque paulatim in formam provinciae proxima pars Britanniae; addita insuper veteranorum colonia. quaedam civitates Cogidumno regi donatae (is ad nostram usque memoriam fidissimus mansit), vetere ac iam pridem recepta populi Romani consuetudine, ut haberet instrumenta servitutis et reges. mox Didius Gallus parta a prioribus continuit, paucis admodum castellis in ulteriora promotis, per quae fama aucti officii quaereretur. Didium Veranius excepit, isque intra annum extinctus est. Suetonius hinc Paulinus biennio prosperas res habuit, subactis nationibus firmatisque praesidiis; quorum fiducia Monam insulam ut vires rebellibus ministrantem adgressus terga occasioni patefecit.

(D) Liberos cuique ac propinquos suos natura carissimos esse voluit: hi per dilectus alibi servituri auferuntur: coniuges sororesque etiam si hosti-

lem libidinem effugiant, nomine amicorum atque hospitum polluuntur. bon? fortunaeque in tributum, ager atque annus in frumentum, corpora ipsa ac manus silvis ac paludibus emuniendis inter verbera ac contumelias conteruntur. nata servituti mancipia semel veneunt, atque ultro a dominis aluntur: Britannia servitutem suam quotidie emit, quotidie pascit. ac sicut n familia recentissimus quisque servorum etiam conservis ludibrio est, sic in hoc orbis terrarum vetere famulatu novi nos et viles in excidium petimur; neque enim arva nobis aut metalla aut portus sunt; quibus exercendis reservemur.

2. In the above extracts explain carefully the construction of:—(*a*) agendis rebus. (*b*) auctoritate suadendi. (*c*) terrae imperatur. (*d*) subactis nationibus firmatisque praesidiis. (*e*) servituri. (*f*) quaereretur.

3. Write short explanatory notes, giving modern names where you can, on the following:— (1) Veteranorum colonia. (2) Monam insulam. (3) Brigantes, Silures, Ordovices. (4) Clota et Bodotria. (5) Colunt discreti ac diversi, ut fons, ut campus, ut nemus placuit. (6) adversus Oceanus.

4. Derive and explain the following, and give cognate forms of any in Greek or English:—decus, vicus, navis, vestis, vulgus, infectos, satis, pignora, lucos, nemora, secretum, lauti.

5. Parse the following:—invasere, miscuere, semineces, prædata, texissent, ascivit, decorem, corruptus, ortos.

6. Explain the use of the oblique cases in the following:— (*a*) Posquam *silvis* adproprinquaverunt. (*b*) Se *proelio* miscuere. (*c*) Et *ipsis vetustate* militiae exercitatum. (*d*) *Senum* coloniæ. (*e*) *Victoriae* incitamenta. (*f*) *Servitutis* expertes. (*g*) Monstratus *fatis* Vespasianus. (*h*) In universum *æstimanti*. (*i*) *Multis scriptoribus* memoratos. (*j*) Abeunti concedere *moris*.

7. Give the exact import of the prepositions used in the following expressions:—ob metum, citra speciem, juxtra libertatem, in haec munera uxor accipitur, ex magnitudine Deorum arbitrantur, promptior in spem, in speciem ac terrorem, seditio sine sanguine stetit.

8. State accurately the distinction between the terms: —ager, arvum; gens, natio; cassis, galea; scelus, flagitium; quæstus, merces; inertia, ignavia; constituo, condico; tumulus, monumentum, sepulcrum; affines, cognati, agnati; libertus, libertinus; nemus, lucus.

9. Mark the quantity of the penultimate of the following words:—margarita, sarcinis, semineces, Batavi, petita, dedita, egerunt (*pres.*), latebris, decora (*noun & adject.*).

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 8TH:—MORNING, 9 TO 12.

LATIN.—PLAUTUS.—AULULARIA.

## THIRD YEAR.

*Examiner*, .....REV. GEORGE CORNISH, LL.D.

1. Translate into English:—

(A)

STR. Haec mihi ted, ut tibi med, aequom est credere.
CO. Imo equidem credo. STR. At scin' etiam, quomodo?
aquam hercle plorat, quom lavat, profundere.
CO. Censen' talentum magnum *exorari potesse*
ab istoc sene ut det, *qui fiamus* liberi?
STR. Famem hercle utendam, si roges, nunquam dabit.
Quin ipsi pridem tonsor unguis demserat:
collegit omnia, abstulit, praesegmina.
AN. Edepol mortalem parce parcum praedicas.
CO. Censen' vero, adeo esse parcum et misere vivere?
STR. Pulmentum pridem ei eripuit miluos.
Homo ad praetorem plorabundus devenit;
infit ibi postulare, plorans, eiulans,
ut *sibi liceret miluom vadarier.*
Sexcenta sunt, quae memorem, si sit otium.
Sed uter vostrorum est celerior, memora mihi.
CO. Ego, ut multo melior. STR. Cocum ego, non furem, rogo.
CO. Cocum ego dico. STR. Quid tu ais? AN. Sic sum, ut vides.
CO. Cocus ille nundinalist: in nonum diem
solet ire coctum. AN. Tun', trium litterarum homo,
me vituperas? fur! etiam fur! trifurcifer! .....

(B)

EU. Volui animum tandem confirmare hodie meum,
ut bene me haberem filiai *nuptiis:*
venio ad macellum, rogito piscis; indicant
caros, agninam caram, caram bubulam,
vitulinam, cetum, porcinam, cara omnia:
atque eo fuerunt cariora: aes non erat.
Abeo illinc iratus, quoniam nihil est, qui emam;
ita illis impuris omnibus adivi manum.
Deinde egomet mecum cogitare inter vias
occepi: festo die si quid prodegeris,
profesto egere liceat, nisi peperceris.
Postquam hanc rationem cordi ventrique edidi,
accessit animus ad meam sententiam,
quam minumo sumtu filiam ut *nuptum* darem.

(C)

EU. Quid abstulisti hinc? STR. Di me perdant, si ego tui quidquam abstuli,—
nive adeo abstulisse vellem. EU. Agedum, excutedum pallium .....
STR. Tuo arbitratu. EU. ne inter tunicas habeas. STR. Tenta qua lubet.
EU. Vah, scelestus quam benigne, ut ne abstulisse intelligam!
Novi sycophantias. Age, rursum ostende huc manum
dexteram! STR. Hem! EU. Nunc laevam ostende. STB. Quin equidem
ambas profero.
EU. Iam *scrutari mitto*. Redde huc! STR. Quid reddam? EU. Ah, nugas
agis.
Certe habes. STR. Habeo ego? quid habeo? EU. Non dico: audire
expetis.
Id meum quidquid habes, redde! STR. Insanis: perscrutatus es
tuo arbitratu, neque tui me quidquam invenisti penes.
EU. Mane, mane: quis ille est, qui hic intus alter erat tecum simul
Perii hercle: ille nunc intus turbat; hunc si amitto, hic abierit.
Postremo hunc iam perscrutavi; hic nihil habet. Abi, quo lubet.
Iupiter te dique perdant! STR. Haud agit male gratias.
EU. Ibo hinc intro atque *illi socienno* tuo iam interstringam gulam.
Fugin' hinc ab oculis? abin' an non? STR. Abeo. EU. *Cave*, sis, *revi-
deam!*—

2. Construe carefully the words printed in italics in the above extracts.

3. Explain the following words, both as to meaning and derivation:—Salutigerulos pueros, phrygio, aurifex, ciniflones, patagiarii, flammearii, propolae, manulearii, phylacistae, putatur ratio.

4. Explain the formation of the following:—med, ted, oppido, impetrassere, juxta, perduim, eccas, sis, indicassis, faxim, secus, profesto.

5. Write explanatory notes on:—(1) Lar. (2) Magister curiae. (3) Nomen Postumus. (4) Cocus *nundinalis*. (5) Ad *Trisviros*. (6) *Numo* sum conductus. (7) *Laterna Punica*. (8) *Censione* bubula. (9) *Foris crepuit*. (10) Foras *pulsare*. (11) *Vestitu* et *creta*. (12) Juno *Lucina*.

6. (*a*) Illustrate the use of the Dative to express (1) the Remoter Object; (2) the Recipient; and (3) Purpose. (*b*) Also the Ablative to express (1) Instrumentality and Agency; (2) Quality; and (3) Separation.

7. (*a*) What does the Gerundive Participle denote? Name its various modes of construction. (*b*) What are the two supines in *um* and *u*? After what classes of verbs and adjectives are they severally used?

8. Distinguish between the meaning of:—compellare and compellere; colligare and colligere; consternare and consternere; fundare and fundere; mandare and mandere; cŏlo and colo; lĕgo and lēgo; dĭco and dīco; rĕfert and rēfert; compăres and compāres.

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATION, 1873.

TUESDAY, APRIL 8TH:—MORNING, 9 TO 12.

LATIN.—{ PLAUTUS.—AULULARIA.
{ LIVY.—BOOK XXI.

*Examiners*,..... { REV. GEORGE CORNISH, LL.D.
{ REV. GEORGE WEIR, M.A.

1. Translate:—

(A) *

STR. Heus, Staphyla, prodi atque ostium aperi! STA. Qui vocat?
STR. Strobilus. STA. Quid vis? STR. Hos ut accipias cocos.
tibicinamque obsoniumque in nuptias.
Megadorus iussit Euclioni haec mittere.
STA. Cererin', Strobile, has facturi nuptias?
STR. Qui? STA. Quia temeti nihil allatum intellego.
STR. At iam afferetur, si a foro ipsus redierit.
STA. Ligna hic apud nos nulla sunt. CO. Sunt asseres?
STA. Sunt pol. CO. Sunt igitur ligna: ne quaeras foris.
STA. Quid, impurate? quamquam Volcano studes,
coenaene causa aut tuae mercedis gratia
nos nostras aedis postulas comburere?
CO. Haud postulo. STR. Duc istos intro. STA. Sequimini.

PYTHODICUS.

Curate; ego intervisam, quid faciant coci;
quos pol ut ego hodie servem, cura maxuma est.
Nisi unum hoc faciam, ut in puteo coenam coquant;
inde coctam sursum subducemus corbulis;
si autem deoruem comedent, si quid coxerint;
superi incoenati sunt et coenati inferi.
Sed verba hic facio, quasi negoti nil siet,
Rapacidarum ubi tantum siet in aedibus.

(B)

EU. Dic bona fide: tu id aurum non subripuisti? LY. Bona.
EU. Neque scis, quis id abstulerit? LY. Istuc quoque bona. EU. Atque id
si scies,

qui abstulerit, mihi indicabis? LY. Faciam. EU. Neque partem tibi
ab eo, quiqui est, inde posces, neque furem excipies? LY. Ita.
EU. Quid, si fallis? LY. Tum me faciat, quod volt, magnus Iupiter!
EU. Sat habeo. Age nunc, loquere, quid vis. LY. Si me novisti minus,
genere qui sim gnatus: hic mihi est Megadorus avonculos;
meus fuit pater Antimachus; ego vocor Lyconides;
mater est Eunomia. EU. Novi genus: nunc, quid vis, id volo
noscere. LY. Ex te filiam tu habes. EU. Imo eccillam domi.
LY. Eam tu despondisti, opinor, meo avonculo. EU. Omnem rem tenes.
LY. Is me nunc renuntiare repudium iussit tibi.
EU. Repudium, rebus paratis, exornatis nuptiis?
Ut illum di immortales omnes deaeque, quantum est, perduint,
quem propter hodie auri tantum perdidi, infelix, miser!
LY. Bono animo es, benedice! Nunc, quae res tibi et gnatae tuae
bene feliciturque vortat..... Ita di faxint, inquito.
EU. Ita di faciant! LY. Et mihi ita di faciant! Audi nunc iam.

2. *Give a short account of the writings and life of M. Accius Plautus.

3. *Write explanatory notes on the following:—(1) Aulularia. (2) Lares. (3) Cereris vigiliis. (4) Magister Curiæ. (5) Talentum magnum. (6) Homo ad *prætorem* plorabundus devenit.

4. Write short notes on any verbal or grammatical peculiarities that occur in the above extracts.

5. Translate:—

(C) Consules tunc Romæ erant P. Cornelius Scipio et Ti. Sempronius Longus: qui cum legatis in senatum introductis *de re publica retulisent*, placuissetque mitti legatos in Hispaniam ad res sociorum inspiciendas, quibus si videretur digna causa, et Hannibal denuntiarent ut ab Saguntinis, sociis populi Romani, abstineret, et Carthaginem in Africam trajiceret ac sociorum populi Romani *queremonias deferrent*, hac legatione decretaneedum missa, omnium spe celerius Saguntum oppugnari adlatum est. Tunc relata de integro res ad senatum, et alii provincias consulibus Hispaniam atque Africam decernentes terra marique rem gerendam censebant alii totum Hispaniam Hannibalemque intenderant bellum: erant qui non tenere movendam rem tantam expectandosque ex Hispania legatos censerent. Hæc sententia, quæ tutissima videbatur, vicit: legatique eo maturius nissi P. Valerius Flaccus et Q. Bæbius Tamphilus Saguntum ad Hannibalem atque inde Carthaginem, si non absisteretur bello, ad ducem ipsun in pœnam fœderis rupti deposcendum.

(D) *"Quocumque circumtuli oculos, plena omnia video *animorun ac roboris*, veteranum peditem, generosissimarum gentium equites frenatos nfrenatosque, vos socios fidelissimos fortissimosque, vos Carthaginienses cum ob patriam tum ob iram justissimam pugnaturos. Inferimus belum, infestisque signis descendimus in Italiam, tanto audacius fortiusque pugnaturi quam hostis, quanto major spes, major est animus inferentis vim quam arcentis. Accendit præterea et stimulat animos dolor, injuria, indig-

ritas: ad supplicium depoposcerunt me ducem primum, deinde vos omnes qui Saguntum oppugnassetis; deditos ultimis cruciatibus *adfecturi fuerunt*. Crudelissima ac superbissima gens sua omnia *suique arbitrii* facit: cum quibus pacem habeamus, se modum inponere æquum censet: circumscribit includitque nos terminis montium fluminumque quos non *excedamus* neque eos quos statuit terminos observat. 'Ne transieris Hiberum: ne quid rei tibi sit cum Saguntinis!' 'Ad Hiberum est Saguntum.' 'Nusquam te vestigio moveris!' 'Parum est quod veterrimas provincias meas, Siciliam ac Sardiniam, adimis? Etiam Hispanias? Et inde *cessero*, in Africam transcendes.' Transcendes autem dico? Duos consules hujus anni, unum in Africam, alterum in Hispaniam miserunt. Nihil umquam nobis relictum est nisi quod armis vindicaremus. Illis timidis et ignavis esse licet, qui respectum habent, quod sua terra, suus ager per tuta ac pacata itinera fugientes accipient: vobis necesse est fortibus viris esse et, omnibus inter victoriam mortemve certa desperatione abruptis, aut vincere aut, si fortuna dubitabit, in prælio potius quam in fuga mortem oppetere. Si hoc bene firmum omnibus, destinatum in animo est, iterum dicam, vicistis: nullum enim telum ad vincendum homini ab diis immortalibus acrius datum est."

6. (*a*) Explain the difference in meaning between *referre* and *deferre* as used in ext. (C). For *telum* in ext. (D) what other readings? (*b*) Construe the words in italics in ext. (D).

7. Define the geographical position, and give modern names where you can, of:—Carteia, Aegates insulae, Eryx, Ligures, Numidae, Massilia, Messana, Allobroges, Cremonis jugum, Alpes Penninae. (*Penn*— or *Poen*—? And why?)

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

THURSDAY, APRIL 3RD :—AFTERNOON, 2 TO 4.

GREEK AND LATIN PROSE COMPOSITION.

## FIRST YEAR.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

(A Translate into Greek :—

1. The soldiers admired the beauty of the city, into which the general had led them.
2. He rejoiced that his son was both wise and good.
3. The army marched into the territory of the enemy, and laid it waste.
4. The philosophers in the olden time took pleasure in virtue.
5. The same slave was tried for running away from his master.
6. The king said that the citizens had conferred benefits upon the state.
7. The father himself is come to see his son.
8. If he had the gold he would give it to the state.

(B) Translate into Latin :—

1. Alexander the Great founded Alexandria, and made it rich and prosperous.

2. Athens, the capital of Attica, was taken and destroyed by the Persians.

3. It is the duty of all men to obey the laws, and to be mindful of the benefits they receive from the commonwealth.

4. Brutus pretended to be mad, in order the more easily to deceive his enemies, and to serve his country

5. Herodotus relates, that Thales of Miletus predicted to the Ionians an eclipse of the sun, and that it took place at the appointed time.

6. It is of great importance to the state that bad men should not make the laws.

7. The river Euphrates flowed through the midst of Babylon, a city very magnificent, very rich, and very famous in ancient times.

8. It is the duty of parents to teach their children justice, temperance filial affection, and a love of truth, in order to their becoming good citizens.

9. We ought not to put confidence in bad men; but those who are wiser and better than ourselves should be trusted by us.

10. He was born at Athens; lived a short time at Corinth; went thence to Thebes and died there.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

FRIDAY, APRIL 4TH:—AFTERNOON, 2 TO 5.

### LATIN PROSE COMPOSITION,

*Examiners*,..... { REV. GEORGE CORNISH, LL.D.
REV. GEORGE WEIR, M.A.

Translate into Latin :—

(A) So after a time thirty cities of Latins joined together, and made Octavius Mamilius their general, and declared war against the Romans. Now Publius Valerius was dead, and the Romans so loved and honoured him that they buried him within the city near the hill Velia, and all the matrons of Rome had mourned for him for a whole year ; also because the Romans had the Sabines for their enemies as well as the Latins, they made one man to be their ruler for a time instead of two ; and he was called the Master of the people, or the commander, and he had all the power which the kings of Rome had in times past. So Aulus Postumius was appointed master of the people at this time, and Titus Aebutius was chief or master of the Horsemen ; and they led out the whole force of the Romans, and the Latins by the lake Regillus, in the country of Tusculum.

(B) When Achilles was deliberating with himself whether he should kill Agamemnon, by whom he had been deprived of certain Trojan booty which he thought belonged to himself alone, Pallas, who is said to have been equally a friend to the one as to the other, was asked by Juno, who also befriended both, to descend from heaven whence they were both looking down, and allay the hero's wrath before his sword was drawn. Achilles finding himself caught by the hair turned round, and having recognised Pallas, who had not unfrequently appeared to him before, thus spoke : " I know why you, who delight so much in the infamous Agamemnon, have come hither and assualted me from behind ; but why proud Pallas, do you who are permitted to use Jupiter's Aegis, whenever you please, endeavour to prevent me from using arms that I can call my own, having received them from my mother Thetis ?"

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 8TH:—AFTERNOON, 2 TO 4.

## LATIN PROSE COMPOSITION.

### THIRD YEAR.

*Examiner*, .....REV. GEORGE CORNISH, LL.D.

Translate into Latin :—

When the Athenians in the war with the Lacedæmonians received many defeats both by sea and land, they sent a message to the oracle of Jupiter Ammon, to ask the reason why they who erected so many temples to the gods, and adorned them with such costly offerings ; why they who had instituted so many festivals, and accompanied them with such pomps and ceremonies ; in short, why they who had slain so many hecatombs at their altars, should be less successful than the Lacedæmonians who fell so short of them in these particulars ? To this the oracle made the following reply " I am better pleased with the prayers of the Lacedæmonians than with all the oblations of the Greeks." As this prayer implied virtue in those that made it, the philosopher proceeds to shew how the most vicious man might be devout, so far as victims could made him, but that his offerings were regarded by the gods as bribes, and his petitions as blasphemies.

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATION, 1873.

MONDAY, APRIL 7TH:— AFTERNOON, 2 TO 4.

### LATIN PROSE COMPOSITION.

*Examiners*,..... ..... { REV. GEORGE CORNISH, LL.D.
REV. GEORGE WEIR, M.A.

Translate into Latin :—

(A) Last of all came the Sabine with a great army, under Titus Tatius, their king. There is a hill near to the Tiber, which was divided from the Palatine Hill by a low and swampy valley; and on this hill Romulus made a fortress, to keep off the enemy from his city. But when the fair Tarpeia, the daughter of the chief who had charge of the fortress, saw the Sabines draw near, and marked their bracelets and their collars of gold, she longed after these ornaments, and promised to betray the hill into their hands if they would give her those bright things which they wore upon their arms. So she opened a gate, and let in the Sabines, and they, as they came in, threw upon her their bright shields and crushed her to death.

(B) After the battle of Cannæ, when others were congratulating Hannibal on his signal victory, and advising him to grant his weary soldiers, whose bravery had been so conspicuous, one day's repose, Maharbal, general of the horse, urged him, on the other hand, to lead his victorious troops straightway to Rome; for if he now approached the city, the terrified inhabitants would not oppose him, and within a few days he would feast in the Capitol. When Hannibal said that it required time to deliberate on so important a matter, Maharbal exclaimed with a sigh :—"You know, Hannibal, how to conquer, but how to improve a victory you know not." That day's delay is believed to have proved the safety of Rome; for Hannibal after losing this opportunity of completing his work, never had such another presented to him.

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATIONS, 1873.

TUESDAY, APRIL 8TH:—AFTERNOON, 2 TO 4.

### GENERAL PAPER.

*Examiners*,..... { REV. GEORGE CORNISH, LL.D.
REV. GEORGE WEIR, M.A.

1. Write, with dates, a sketch of the life of Æschylus, and mention the most famous of his contemporaries.

2. (*a*) The Prometheus Vinctus was the second drama of a Trilogy — Give the Greek titles of the other two and their subjects. (*b*) Point out what you regard as the leading characteristics of—(1) the poetry;—(2) the style; and (3) the language of Æschylus. What improvements in the composition and representation of Tragedy were effected by him?

3. Mention, with dates, the four periods into which the entire life of Demosthenes is distributed by Æschines.

4. State and characterize the three favorable opportunities for an active Anti-Macedonian policy, of which, according to Æschines, Demosthenes failed to take advantage.

5. Distinguish between the meanings of the following words according o the difference of their accentuation and breathing :—*ἀνα*, *βασιλεια*, *βιος*, *χων*, *ἀρα*, *εἰπε*, *σιγα*, *ην*, *εις*, *οἰκοι*.

6. (*a*) What class of Greek literature, and what authors therein, did the Roman Dramatists mainly take as their models? (*b*) explain the meaning of *fabulæ prætextatæ*, *palliatæ*, *mimi*, and *exodia*.

7. When, in direct narration, are the conjunctions *quod* and *priusquam* joined with the Indicative and the Subjunctive moods, respectively?

8. When is the relative *qui* followed by the Subjunctive.

9. Write down the *Perfect Ind. Act.* (1st Sing.) of :—crepo, discrepo, fido pario, sterno, sero parco, scindo.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 4TH :—AFTERNOON, 2 TO 4.

HISTORY.—HISTORY OF GREECE AND ROME.

## FIRST YEAR.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. (*a*) Name and describe the two gulfs north of Central Greece. (*b*) Name the countries on the west of Central Greece. (*c*) Define the position of Eubœa. (*d*) Give the derivation and meaning of the names *Peloponesus*, *Cyclades*, *Sporades*.

2. What was the age, and what the chief scenes, of Greek colonization?

3. What were the ties that tended to unite the various tribes of Hellas?

4. Write a sketch of the Government and popular institutions of the Spartans. Who were the Helots?

5. What political faction existed in Attica prior to the legislation of Solon? Give a summary of the changes and improvements that were effected by his legislation.

6. Name the Seven Kings of Rome, giving dates where you can, with a general account of their administration of affairs.

7. What were the duties and powers in the Republic, of the *Consul*, *Dictator* and *Tribunus Plebis*?

8. Give a brief history of the Agrarian Laws, and state what was their precise object.

9. What causes led to the struggles between the Patricians and the Plebeians? What were the general results of the contention?

10. At what period and after what wars did Rome become mistress of Italy?

11. How many years did Hannibal continue in Italy, and what signal defeats did he inflict upon the Romans?

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1878.

FRIDAY, April 5th:—AFTERNOON, 2 TO 4.

### HISTORY.—HISTORY OF GREECE AND ROME.

### FIRST YEAR.

Examiner,.....Rev. George Cornish, LL.D.

1. (a) Name and describe the two great north of Central Greece. (b) Name the countries on the west of Central Greece. (c) Define the position of Bœotia. (d) Give the derivation and meaning of the names Peloponnesus, Cyclades, Sporades.

2. What was the age, and what the chief scenes, of Greek colonization?

3. What were the ties that tended to unite the various tribes of Hellas?

4. Write a sketch of the Government and popular institutions of the Spartans. Who were the Helots?

5. What political function existed in Attica prior to the legislation of Solon? Give a summary of the changes and improvements that were effected by his legislation.

6. Name the Seven Kings of Rome, giving dates where you can, with a general account of their administration of affairs.

7. What were the duties and powers in the Republic of the Consul, Dictator and Tribunus Plebis?

8. Give a brief history of the Agrarian Laws, and state what was their precise object.

9. What causes led to the struggles between the Patricians and the Plebeians? What were the general results of the contention?

10. At what period and after what wars did Rome become mistress of Italy?

11. How many years did Hannibal continue in Italy, and what signal defeats did he inflict upon the Romans?

# McGILL UNIVERSITY, MONTREAL.

B. A. ORDINARY EXAMINATION, 1873.

MONDAY, APRIL 28TH :—MORNING, 9 TO 12.

## HISTORY AND ENGLISH LITERATURE.

### HISTORY.—GIBBON AND HUME.

*Examiner*,..... .....REV. GEORGE CORNISH, LL.D.

1. The extent and constitution of the Roman Empire, under the Antonines.

2. The political system of Constantine.

4. The Crusades, and their good and evil results.

5. Mahomet and his conquests.

6. Name the Latin Emperors of Constantinople.

7. Trace the course of events which led to the Restoration of Charles II.

8. The various competitors for the crown of England, on the death of Edward the Confessor, and their respective claims.

9. A sketch of the life and character of any two of the following :—Henry VIII., Thomas Cromwell, Wycliffe, Oliver Cromwell, Dunstan, and Wolsey.

10. Trace the growth and power of the House of Commons.

11. Hume, describes the dispute between theHouses of York and Lancaster, as a " fatal quarrel which was signalized by twelve pitched battles." Give the names and dates of six of those battles, and say which side was victorious in each.

12. Point out any circumstances in the reigns of Elizabeth and James which prepared the way for the Great Rebellion.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 22ND:—MORNING, 9 TO 12.

## THIRD YEAR.

### HONOUR EXAMINATION.

### GREEK.

*Examiners*,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Aristophanes:—Ranae, vss. 173–196.
(B) " " vss. 969–989.

2. (*a*) Name the metre and write down the scale of ext (B). Scan the first five verses. (*b*) Write down the scale of the Trochaic Tetrameter Catalectic. (*c*) Define Crasis and resolve the following:—*κᾆτα, χἠ, κἀν, κἄν, καἶκα, τὦστια, κιμέ, ὠγώ.*

3. Explain the following allusions:—(1) *τί γὰρ οὐκ ἐναυμάχουν.* (2) *δύ' ὀβολώ.* (3) *δνου πόκας.* (4) *τὴν περὶ τῶν κρεῶν.* (5) *'Αναίνου λίθος.* (6) *Διὸς Κόρινθος.* (7) *τὸν προστάτην Κλέωνα.* (8) *τοὺς παράλους.*

4. Translate:—

(C) Theocritus:—Idyll I., vss. 15–38.
(D) " " V., vss. 18–40.

5. (*a*) Write a sketch of the life of Theocritus, and state to what school of poetry he belonged. (*b*) Point out the characteristics of Bucolic poetry as to metre, dialect, form and character.

6. Translate:—

(E) Pindar:—Olympia II., vss. 1–22.
(F) " " IX., vss. 21–39.

In ext. (E) vs. 6, Donaldson reads *ὅπιν*:—give his rendering and interpretation.

7. Parse the following words from Pindar and Theocritus, and give Attic equivalents where you can:—*γαρύεν, κεκαδμένον, ἰανθείς, ἀρετᾶν, γεγάκειν, ἔμμεν, ἐντί, ἀποισῇ, λῇς, θᾶσαι, περάσαι, μέσφα.*

8. Give the etymology and meaning of:—*δυσέρωτα, ῥοδόπαχυν, ἱππομανές, ἔναλλα, τρώξιμον, βοηλάτα, σύμβολον, σκύταλον, πύξ, διχόμηνις.*

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 22ND :—AFTERNOON, 2 TO 5.

## GREEK AND LATIN PROSE COMPOSITION.

## THIRD YEAR.

### HONOUR EXAMINATION.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. Translate into Greek (accentuated) :—

And it was now near the setting of the sun ; for he had been away in the inner room for a long time. But when he came in from bathing he sat down and did not speak much afterwards ; for then the servant of the Eleven came in, and standing near him, said, "I do not perceive that in in you, Socrates, which I have taken notice of in others : I mean, that they are angry with me and curse me, when being compelled by the magistrates I announce to them that they must drink the poison. But on the contrary, I have found you to the present time to be the most generous, mild, and best of all the men that ever came into this place ; and therefore I am well convinced that you are not angry with me, but with the authors of your present condition, for you know who they are. Now therefore, for you know what I came to tell you, farewell ; and endeavour to bear this necessity as easily as possible.

2. Translate into Latin :—

L. Cæsar, the uncle of Antony, and Paulus, the brother of Lepidus, were included in the proscription. The flatterers of Augustus endeavoured to palliate, as an act of hard necessity, his abandoning Cicero to the revenge of Antony ; as if there could remain any feeling towards Cicero but that of shame and aversion in one who had made himself the accomplice of Antony and Lepidus for the subversion of the Republic.

Neither L. Cæsar nor P. Lepidus was deprived of life. But Antony's anger neither cooled nor slumbered : his illustrious victim was overtaken near his Formian villa, in the sixty-fourth year of his age, as he was preparing to take ship.

The rarest natural endowments cultivated by study, and sharpened by the business of an active life, gave to Cicero a distinguished rank in this age of extraordinary men : with powers of speaking beyond what had been heard in his own country, and perhaps not inferior to those which ever adorned any other, he possessed in a degree superior to all other orators, of whatever age or nation, a general and extensive knowledge of all subjects of science, philosophy and literature, together with an admirable felicity of communicating and recording the fruits of his researches, in the most perspicuous, the most copious, and the most attractive manner.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 25TH :—MORNING, 9 to 12.

## THIRD YEAR.

### HONOUR EXAMINATION.

### LATIN.

*Examiner*, . . . . . REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Tacitus:—Annals, Book I., chap. lviii.

2. "Sed veteris Populi Romani prospera vel adversa claris scriptoribus, &c."—Mention the chief Roman Historians that preceded Tacitus, with the subjects they recorded, and the ages in which they flourished. Who of the Latins may be appropriately compared with the celebrated Grecian Historians?

3. (1) Translate:—"Legata non ultra civilem modum, nisi quod populo plebi ccccxxxv, prætoriarum cohortium militibus singula nummum millia, legionariis ccc, cohortibus civium Romanorum ccccc nummos viritim dedit." (c. 8.) Distinguish between *populo* and *plebi*. Write out these several sums in English money. (2) Arminius offered to every deserter from the Romans "sestertios centenos in dies:" Tiberius gave to the inhabitants of Sardis "centies sestertium." Give an explanation. (3) Give an account of the three kinds of soldiers mentioned above, assigning a reason for the difference of their legacies.

4. It was objected to Augustus:—"Pacem sine dubio posthæc, verum cruentam: Lollianas Varianasque clades: interfectos Romæ Varrones, Egnatios, Iulos..... Abducta Neroni uxor..... Livia gravis domui Cæsarum noverca." Explain briefly the events referred to in this quotation.

5. What were the limits of the Roman empire in the time of Augustus? What advice did he leave respecting them? And how long was that advice regarded?

6. Translate:—

(B) Juvenal:—Sat. VIII., vss. 21 — 38.

(C) " Sat. X., vss. 65 — 88.

7. Write an account of the social and political condition of Rome as illustrated by the persons and events referred to in ext. (C).

8. Translate:—

(D) Persius:—Sat. V., vss. 52 — 65.

(E) " Sat. VI., vss. 41 — 56.

9. Write short notes explanatory of the grammar or the interpretation of the following extt. from Persius:—(Sat. V.) (*a*) *Pullatis* nugis (19). (*b*) *Succinctis* Laribus (31). (*c*) *Campo* indulget (57). (*d*) *Dama* non *tressis* agaso **** *Marcus* Dama (76 — 79). (*e*) Nummi quos *quincunce* modesto nutrieras (149). (*f*) Grandes *Galli* (186). (Sat. VI.) (*g*) *Exossatus* ager (52).

10. Give the derivation and meaning of:—Catasta, trama, sinciput, artorceas, bruma, varicosos, palpo, sportula, cachinni, urceoli, patellæ, exuviæ.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 25TH:—AFTERNOON, 2 TO 5.

## GREEK AND ROMAN HISTORY.

## THIRD YEAR.

### HONOUR EXAMINATION.

*Examiner*,..... .....REV. GEORGE CORNISH, LL.D.

1. An account of the Grecian despots. What States presented the most favourable conditions for the development and success of their plans?

2. Name the characteristics of the Ionic, Dorian, and Æolic races, severally, for military, civil, and literary and artistic pursuits. What parts of Hellas did they inhabit or colonize?

3. What advantages did the Greeks derive from their contact and intercourse with the non-Hellenic races of Asia Minor and other countries?

4. Give an account of the great Pan-Hellenic Festivals. In what respects may their institution and maintenance be regarded as beneficial to the political well-being of Hellas?

5. The date and causes of the Ionic Revolt, and the important events that resulted therefrom.

6. Write a sketch of the public life of any two of the following:—Miltiades, Themistocles, Coriolanus, Hannibal.

7. What events favoured the divergence and ultimate hostility of Athens and Sparta?

8. An account of the earliest migrations into Italy.

9. Give the substance of Mommsen's chapter on the agriculture, trade, and commerce of the inhabitants of Italy during the period of the Monarchy at Rome.

10. Trace the successive steps of conquest by which Rome made herself mistress of Italy.

11. What were the rudiments of the drama and historical composition among the Romans?

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

WEDNESDAY, APRIL 16TH :—MORNING, 9 TO 12.

### LATIN PROSE COMPOSITION.

*Examiner*.....REV. GEORGE CORNISH, LL.D.

Translate into Latin :—

(A) But when nations are in a state similar to each other, and keep equal pace in their advances towards refinement, they are not exposed to the calamity of sudden conquests. Their acquisitions of knowledge, their progress in the art of war, their political sagacity and address, are nearly equal. The fate of states in this situation depends not on a single battle. Their internal resources are many and various. Nor are they themselves alone interested in their own safety, or active in their own defence. Other states interpose, and balance any temporary advantage which either party may have acquired. After the fiercest and most lengthened contest, all the rival nations are exhausted, none are conquered. At length they find it necessary to conclude a peace, which restores to each almost the same power and the same territories of which they were formerly in possession.

Such was the state of Europe during the reign of Charles V. No prince was so much superior to the rest in power, as to render his efforts irresistible, and is conquests easy. No nation had made progress in improvement so far beyond its neighbours as to have acquired a very manifest pre-eminence. Each estate derived some advatange, or was subject to some inconvenience from its situation or its climate ; each was distinguished by something peculiar in the genius of its people, or the constitution of its government. But the advantages possessed by one state were counterbalanced by circumstances favourable to others ; and this prevented any from attaining such superiority as might have been fatal to all.

(B) And since I have mentioned Pyrrhus, I will end with a very good though known story of this ambitious madman. When he had shewn the utmost fondness for his expedition against the Romans, Cineas, his chief minister, asked him what he proposed to himself by this war ? " Why," says Pyrrhus, " to conquer the Romans, and reduce all Italy to my obedience." " What then ? " says Cineas. To pass over into Sicily," says Pyrrhus, " and then all the Sicilians must be our subjects." " And what does your majesty intend next ? " " Why truly," says the king, " to conquer Carthage, and make myself master of all Africa." " And what, sir," says the minister, " is to be the end of all your expeditions ?" " Why then," says the king, " for the rest of our lives we will sit down to good wine." " How, sir," reply Cineas, " to better than we have now before us ? Have we not already as much as we can drink ? "

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

WEDNESDAY, August 16TH :—Morning, 9 to 12.

### LATIN PROSE COMPOSITION.

Examiner.....Rev. George Cornish, LL.D.

Translate into Latin :—

(A) But when nations are in a state similar to each other, and keep equal pace in their advances towards refinement, they are not exposed to the calamity of sudden conquests. Their acquisitions of knowledge, their progress in the art of war, their political sagacity and address, are nearly equal. The fate of states in this situation depends not on a single battle. Their internal resources are many and various. Nor are they themselves alone interested in their own safety, or active by their own devices. Other states interpose, and balance any temporary advantage which either party may have acquired. After the fiercest and most long-loined contest, all the rival nations are exhausted, none are conquered. At length they find it necessary to conclude a peace, which restores to each almost the same power and the same territories of which they were formerly in possession.

Such was the state of Europe during the reign of Charles V. No prince was so much superior to the rest in power, as to render his efforts irresistible, and is conquests easy. No nation had made progress in improvement so far beyond its neighbours as to have acquired a very manifest preeminence. Each state derived some advantage, or was subject to some inconvenience from its situation or its climate ; each was distinguished by something peculiar in the genius of its people, or the constitution of its government. But the advantages possessed by one state were counterbalanced by circumstances favourable to others ; and this prevented any from attaining such superiority as might have been fatal to all.

(B) And since I have mentioned Pyrrhus, I will end with a very good though known story of this ambitious tyrannus. When he had shewn the utmost toughness for his expedition against the Romans, Cineas, his chief minister, asked him what he proposed to himself by this war ? " Why," says Pyrrhus, " to conquer the Romans, and reduce all Italy to my obedience." " What then ? " says Cineas. To pass over into Sicily," says Pyrrhus, " and then all the Sicilians must be our subjects." " And what does your majesty intend next ? " " Why truly," says the king, " to conquer Carthage, and make myself master of all Africa." " And what, sir," says the minister, " is to be the end of all your expeditions ? " " Why then," says the king, " for the rest of our lives we will sit down to good wine." " How, sir," reply Cineas, " to better than we have now before us ? Have we not already as much as we can drink ? "

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

WEDNESDAY, April 16th:—AFTERNOON, 2 TO 5.

### GREEK PROSE COMPOSITION

Examiner,.....Rev. Duncan Campbell, LL.D.

Translate into Greek (accented):—

(A) When he had thus spoken he arose, and went into another room that he might wash himself, and Orthon followed him; but he ordered us to wait for him. We waited therefore accordingly, discoursing over and reviewing among ourselves what had been said: and sometimes speaking about his death, how great a calamity it would be to us; and sincerely thinking that we, like those who are deprived of their fathers, should pass the rest of our life in the condition of orphans. But when he had washed himself, his sons were brought to him (for he had two little ones, and one older), and the woman belonging to his family likewise came in to him; but when he had spoken to them before Orthon, and had left them such injunctions as he thought proper, he ordered the boys and women to depart, and he himself returned to us.

(B) Now, I perceive that there are very rich and are the lord of many men: but I cannot declare of these that on which that direct question me until I shall have learnt that thou hast ended thy life well. For assuredly he that is very wealthy is not a whit happier than he that lives from hand to mouth, unless the good luck chance to attend upon him that he should, whilst still in the possession of all his good things, end his life well. For many very rich men are unfortunate; whilst many possessed of but a moderate livelihood are fortunate. Now I wean, the very wealthy but unfortunate has the advantage of the fortunate in two points only; whilst the latter has the advantage of the wealthy and unfortunate in many. The former is better able to gratify his desires and to endure great calamity should it come upon him; but the latter has the advantage of him thus:—he is not equally able to satisfy his desires and to bear calamity, but he is sound of limb, free from disease, unacquainted with troubles, blessed in his children, and of comely person. And if, beside all this, he shall end his life well, this is the man than art in quest of that has good claim to be called happy.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

WEDNESDAY, APRIL 16TH :—AFTERNOON, 2 TO 5.

### GREEK PROSE COMPOSITION

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

Translate into Greek (acccented) :—

(A) When he had thus spoken he arose, and went into another room that he might wash himself, and Criton followed him ; but he ordered us to wait for him. We waited therefore accordingly, discoursing over and reviewing among ourselves what had been said : and sometimes speaking about his death, how great a calamity it would be to us ; and sincerely thinking that we, like those who are deprived of their fathers, should pass the rest of our life in the condition of orphans. But when he had washed himself, his sons were brought to him (for he had two little ones, and one older), and the women belonging to his family likewise came in to him ; but when he had spoken to them before Criton, and had left them such injunctions as he thought proper, he ordered the boys and women to depart, and he himself returned to us.

(B) Now, I perceive that thou art very rich and art the lord of many men : but I cannot declare of thee that on which thou didst question me until I shall have learnt that thou hast ended thy life well. For assuredly he that is very wealthy is not a whit happier than he that lives from hand to mouth, unless the good luck chance to attend upon him that he should, whilst still in the possession of all his good things, end his life well. For many very rich men are unfortunate ; whilst many possessed of but a moderate livelihood are fortunate. Now I ween, the very wealthy but unfortunate has the advantage of the fortunate in two points only ; whilst the latter has the advantage of the wealthy and unfortunate in many. The former is better able to gratify his desires and to endure great calamity should it come upon him ; but the latter has the advantage of him thus ;—he is not equally able to satisfy his desires and to bear calamity, but he is sound of limb, free from disease, unacquainted with troubles, blessed in his children, and of comely person. And if, beside all this, he shall end his life well, this is the man thou art in quest of that has good claim to be called happy.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

FRIDAY, APRIL 15TH:—MORNING, 9 TO 12.

### LATIN PROSE WRITERS.

*Examiner*..... REV. GEORGE CORNISH, LL.D.

Translate into English, adding a brief comment where any peculiar form or construction seems to you to require it:—

(A) Livy:—Book XXII.; chap. x., down to *solutus liber esto*.
(B) Tacitus:—Annals, Book I., chap. lxxii.
(C) Tacitus:—Histories, Book I., chap liii.
(D) Cicero:—De Officiis, Book III., chap. x., §§ 43-44.
(E) Cicero:—De Imp. Cn. Pomp., chap. xvii., §§ 51-52.

1. Explain the meaning of (Vide Livy, xxii., chap. ix.):—(*a*) Dictator. (*b*) Libros Sibyllinos adire. (*c*) Ludos magnos. (*d*) Supplicationem lectisterniumque habendum. (*e*) Ver sacrum.

2. Explain the following which occur in Tacitus, Histories I.:—(*a*) Vacationes praestari (46). (*b*) Quattuor principes ferro interempti. Trina bella civilia. Perdomita Brittania (2). (*c*) Urbano militi. Comitia imperii (14). (*d*) Centenos nummos (24). (*e*) Praetor urbanus (47). (*f*) Subsignanum militem (70).

3. A short account of Cicero's philosophy. Who among the Greeks were the chief professors of this philosophy?

4. Comment on the derivation of the following words:—Duella, clepsit, profanum, anteidea, paganos, vexilla, flamines, sodales, sacramentum, calones.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

FRIDAY, April 18TH :—AFTERNOON, 2 TO 6.

### LATIN POETS.

Examiner,.....Rev. Gideon Ouseley, LL.D.

Translate, adding an explanatory note where you may deem it necessary on any peculiar form or construction :—

(A) Juvenal :—Sat. VIII., vss. 146-182.

(B) Persius :—Sat. VI., vss. 36-80.

(C) Horace :—Sat., Book I., Sat. iii., vss. 41-69.

(D) Terence :—Adelphi, Act I., sc. 2, vss. 31-48.

(E) Plautus :—Aulularia, Act iii., sc. 5, vss. 31-42.

(F) Virgil :—Æneid, Book III., vss. 182-172.

1. Institute a comparison between the three great Roman satirists in respect of the moral and literary characteristics of their writings.

2. Give the difference in meaning of the following various readings :—(Juvenal, Sat. VIII.) (a) Memorosque—Numerosque minorem [4]. (b) Famosos—famosos magistros [8]. (c) Corytiae—corybasi. (d) Torum—rotum juvencum [139]. (e) (Sat. x.) Summas—sedes curules [311]. (f) Aquata—aquatis in rupe [339].

3. Discuss the grammar of the following (Persius, V. and VI.) :—(a) Unctos parpura (V. 30). (b) Fallere sollers (39). (c) Arrideam vultum (40). (d) Mansi rubrica (39). (e) Lubrica Cos (139). (f) Cor Enni **** Py thagoreo (vi. 10-11). (g) Maris expers (39).

4. Give an account of Plautus and Terence, and note points of contrast between them in respect of language, syntax, and treatment of subject. It is supposed by some that Plautus had a special object in view in writing the passage given in ext. (E). Comment on this.

5. Cite archaic forms of words used by Virgil.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

FRIDAY, APRIL 18TH :—AFTERNOON, 2 TO 5.

### LATIN POETS.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

Translate, adding an explanatory note where you may deem it necessary on any peculiar form or construction :—

(A) Juvenal :—Sat. VIII., vss. 146-162.
(B) Persius :—Sat. VI., vss. 25-40.
(C) Horace :—Satt., Book I., Sat. iii., vss. 41-56.
(D) Terence :—Adelphi, Act i., sc. 2, vss. 31-49.
(E) Plautus :—Aulularia, Act iii., sc. 5, vss. 31-48.
(F) Virgil :—Æneid, Book III., vss. 162-175.

1. Institute a comparison between the three great Roman satirists in respect of the moral and literary characteristics of their writings.

2. Give the difference in meaning of the following various readings :—(Juvenal, Sat. VIII.) (*a*) *Humeroque—humerosque* minorem [4]. (*b*) *Fumosos —famosos* magistros [8]. (*c*) *Corythae—coryphaei*. (*d*) *Torvum—robum* juvencum [155]. (*e*) (Sat. x.) *Summas—sellas* curules [91]. (*f*) *Angusta—augusta* in rupe [93].

3. Discuss the meaning of the following (Persius, V. and VI.) :—(*a*) Custos purpura (V. 30). (*b*) Fallere sollers (39). (*c*) Artificem vultum (40). (*e*) Masuri rubrica (90). (*f*) Lubrica Coa (135). (*g*) Cor Enni **** Pythagoreo (vi. 10-11). (*h*) Maris expers (39).

4. Give an account of Plautus and Terence, and note points of contrast between them in respect of language, syntax, and treatment of subject. It is supposed by some that Plautus had a special object in view in writing the passage given in ext. (E). Comment on this.

5. Cite archaic forms of words used by Virgil.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

TUESDAY, APRIL 22ND:—MORNING, 9 TO 12.

### GREEK PROSE WRITERS.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. Translate, adding an explanatory note where you deem it necessary, the following extracts:—

(A) Thucydides:—Book I., chap. xx.
(B) Herodotus:—Book IX., chaps. xlvi.–vii.
(C) Xenophon:—Hellenics, Book I., chap. vi., §§ 19–20.

2. In ext. (C) explain:—*ἐπιβάτας, κοίλην ναῦν, παραρρύματα, ὡς ἕκαστοι ἠνοιγον.* (§21). What important naval action followed this stratagem on the part of Conon?

3. Ext. (B):—*καταρρωδήσας τοὺς Πέρσας*:—Was such likely to have been the fact? If not, what may be inferred from this statement?

4. Ext. (A):—(*a*) Explain the expression *χαλεπὰ ὄντα παντὶ ἐξῆς*—*πᾶν τι*, Krüger—*τεκμηρίῳ πιστεῦσαι*. (*b*) *Πιτανάτην*:—name the four demes of which Sparta was composed. (*c*) Dates of the events referred to in this ext.

5. Translate:—

(D) Plato:—De Republica, Book I., § xi., down to *ὅμοιον τοῦτο ἐκείνῳ*.
(E) Aristotle:—Nicomachean Ethics, Book I., chap. viii., down to *τὰ πλεῖστα κατορθοῦν*.

6. (*a*) Distinguish accurately between:—*τέχνη* and *μέθοδος*, *πρᾶξις* and *προαίρεσις*, *δοκεῖ*, *φαίνεται*, and *τυγχάνει*. (*b*) Derive and explain:—*σαρδάνιον, εἰρωνεία, ὕλη, ἀπολαυστικόν, πάρεργα, ἐπιπολαζούσας*.

7. Translate:—

(F) Demosthenes:—De Corona, §261–62 (Ed. Tauch.), *Ἐπὶ ἄρχοντος Πολυκλέους* down to end of the *Κατάλογος*.

8. An account of the *τριηραρχία* at Athens.

# McGILL UNIVERSITY, MONTREAL.

## B.A. EXAMINATIONS FOR HONOURS IN CLASSICS, 1873.

TUESDAY, APRIL 22ND :—AFTERNOON, 2 TO 5.

*Examiner*,.....REV. GEORGE CORNISH, LL.D

1. Give the primary meaning of the prepositions παρὰ and *sub*, severally, and illustrate how that meaning is modified by the different cases with which they are constructed.

2. Analyse into their component elements, pointing out carefully the root in each :—δούρατος, ναῦς, ὠσί, χαρίεντος, *musae, deûm, pepulisti, noluerim, sicubi.*

3. Explain and illustrate the uses of :—(*a*) The Nominative Absolute. (*b*) The Objective Genitive. (*c*) The Ethical Dative. (Illustrate from English usage.) (*d*) Accusative of closer definition. (*e*) Dative of the Agent and of the Object. (*f*) Historical Infinitive.

4. Account for the so-called *Genetivus Loci* in Latin.

5. Give the Greek and Latin cognates of the following words and trace the connection between them :—*foot, know, sweet, heart, door, seven, folk, wick,* (hamlet) *wine, fist, hound.*

6. State the leading principles of structure and arrangement in a Latin sentence as distinguished from English.

7. Name the writers in the Doric dialect whose works have come down to us. To what dialects are the following words severally referable? Give, where you can, the Attic equivalents :—ἔμεναι, βασιλενέμεν, ἀμβᾶτε, κακαγόρος, ἐριπέντι, ἀντάσαις, αἶκα, συρίσδεν, τῆνος, τίν, τύ, τυ, ἦνθε.

8. Write down the proper breathings and accents of the following passage :—

Εντανθα οι περι Ξενοφωντα συμπεριτυγχανουσιν αυτῳ, και λαμβανουσιν αυτον, και γυναικα, και παιδας, και τους ιππους, και παντα τα οντα· και ουτω τα προτερα ιερα απεβη. Επειτα παλιν αφικνουνται εις Περγαμον. Εντανθα τον θεον ουκ ητιασατο ο Ξενοφων· συνεπραττον γαρ και οι Λακωνες, και οι λοχαγοι, και οι αλλοι στρατηγοι, και οι στρατιωται, ωστε εξαιρετα λαμβανειν, και ιππους, και ζευγη, και ταλλα· ωστε ικανον εἶναι και αλλον ηδη ευ ποιειν.

9. Give the divisions of the month according to Greek and Roman usage. Express in Latin, according to the Roman Calendar (era A. U. C.), Tuesday, April 22nd, 1873, 3 o'clock P.M. Write in English, A. D. III. Non. Apr. A. D. X. Kal. Mai. A. D. V. Id. Mart. Expand each date.

10. Sketch briefly the history of Greek Lyric poetry, pointing out the peculiarities which distinguished it from other kinds of poetry.

11. Distinguish between the dialect of the choruses and that of the dialogue in Greek tragedy, and show in what the former had its origin.

12. (*a*) Explain *χορὸν διδόναι, δρᾶμα διδάσκειν, πρωταγωνιστής, κορυφαῖος, πάροδος, κομμός, ἐκκύκλημα.* (*b*) "Theatrical exhibitions formed a part of certain festivals of Bacchus."—Comment on this in respect of the *time*, the *place*, and the *manner* of their performance.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

FRIDAY, APRIL 25TH:—Morning, 9 to 12.

### GREEK POETS.

Examiner,.....Rev. Gideon Ouseley, LL.D.

1. Translate:—

(A) Pindar:—Olympia X. (Ed. Tauchnitz.)

(B) Theocritus:—Idyl VI., vss. 1–20.

2. (a) What is meant by the scholia Pindarica? Cite an instance from ext. (A), and another from Olymp. VIII., if a var. lect. be adopted. (b) Point out where in the verse of Theocritus the Æolic Digamma occurs. (c) (B), vs. 11:—how explained by different interpreters?

3. Translate:—

(C) Æschylus:—Septem contra Thebas, vss. 78–99; and 702–719 (Ed. Dindorf).

(D) Sophocles:—Antigone, vss. 781–805 (Ed. Tauchnitz).

(E) Euripides:—Hippolytus, 600–617.

4. (a) How does Aristophanes characterize the Seven against Thebes? How may the popularity of this drama in ancient and later times be accounted for? (b) By what other Dramatists, and in what plays, has the subject of the expedition of Polynices against Thebes, and the events consequent thereupon, been treated. (c) Explain the construction of the sec. in (D) 781, μήχαν, and in 787, σε.

5. Translate:—

(F) Aristophanes:—Ranæ, vs. 902–918.

6. Name the metre and give the scale of ext. (F).

7. Translate:—

(G) Homer:—Odyssey, Book I., vss. 329–411.

8. Name the metre, write down the scale, and scan each of the following extracts:—

(a) πέφανο τὴν Δαεκλεσσαν θεὸν, οὐ θεσὸς ἄνωγε,

τοιοῦτος, κοιμήσατο πατρὸς ἐλεύσεσθ' Ἀχιλῆος

τράπεσθ' τοῦ τερπόμενος ἀνηρ Ἀπηδήσεσθ' Οὐλύμπου.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

FRIDAY, APRIL 25TH:——MORNING, 9 TO 12.

### GREEK POETS.

*Examiner*, .....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Pindar:—Olympia X. (Ed. Teubner.).

(B) Theocritus:—Idyl VI., vss. 1-20.

2. (*a*) What is meant by the *schema Pindaricum*? Cite an instance from ext. (A), and another from Olymp. VIII., if a *var. lect.* be adopted. (*b*) Point out where in the verse of Theocritus the *Bucolic Caesura* occurs. (*c*) (B), vs. 11:—*νιν*—how explained by different interpreters?

3. Translate:—

(C) Æschylus:—Septem contra Thebas, vss. 78-99; and 702-719 (Ed. Dindorf).

(D) Sophocles:—Antigone, vss. 781-805 (Ed. Tauchnitz).

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4. (*a*) How does Aristophanes characterize the Seven against Thebes? How may the popularity of this drama in ancient and later times be accounted for? (*b*) By what other Dramatists, and in what plays, has the subject of the expedition of Polynices against Thebes, and the events consequent thereupon, been treated. (*c*) Explain the construction of the acc. in (D) 781, *μάχαν*, and in 787, *σε*.

5. Translate:—

(F) Aristophanes:—Ranae, vs. 902-918.

6. Name the metre and give the scale of ext. (F).

7. Translate:—

(G) Homer:—Odyssey, Book I., vss. 399-411.

8. Name the metre, write down the scale, and scan each of the following extracts:—

(*a*) *πέφρικα τὰν ὠλεσίοικον θεὸν, οὐ θεοῖς ὁμοίαν,*
*παναληθῆ, κακόμαντιν πατρὸς εὐκταίαν Ἐρινὺν*
*τελέσαι τὰς περιθύμους κατάρας βλαψιφρόνως Οἰδιπόδα.*

(b) τοὶ μὲν γὰρ ποτὶ πύργους
πανδημεὶ πανομιλεὶ
στείχουσιν· τί γένωμαι ;
τοὶ δ' ἐπ' ἀμφιβόλοισιν
ἰάπτουσι πολίταις
χερμάδ' ὀκριόεσσαν.

(c) θρεῦμαι φοβερὰ μεγάλ' ἄχη,
καθεῖται στρατὸς στρατόπεδον λιπὼν,
ῥεῖ πολὺς δδε λεὼς πρόδρομος ἱππότας·
αἰθερία κόνις με πείθει φανεῖσ',
ἀνανδος, σαφὴς, ἔτυμος ἄγγελος·

(d) δορὶ δ' ἔκανες.
δορὶ δ' ἔθανες.
μελεόπονος.
μελεοπαθές.

# McGILL UNIVERSITY, MONTREAL.

## B. A. EXAMINATION FOR HONOURS IN CLASSICS, 1873.

FRIDAY, APRIL 25TH:—AFTERNOON, 2 TO 5.

## HISTORY OF GREECE AND ROME.

*Examiner*,.....REV. GEORGE CORNISH, LL.D.

1. Give the substance of Grote's remarks on the effect of the geographical configuration of Greece upon its political and intellectual history. What modern nations would you instance as illustrating in the most marked manner the influences of climate and geographical position?

2. Into what periods would you divide the history oi Greece?

3. Give the dates of the following events:—Ionic Revolt, battles of Marathon, Mycale, Ægospotami, Arginusæ, Leuctra, and Chaeronea, with the names of the parties engaged. Date also:—The conquest of Alba, establishment of the Consulship, the sack of Rome by the Gauls, the First Punic war, and the conquest of Greece?

4. Write a short account of any two of the following:—Cleisthenes, Brasidas, Alcibiades, Sp. Cassius, Ap. Claudius, Spartacus.

5. Describe in outline the institutions of the Athenian Democracy under Pericles. In what modern States may institutions of the same kind be found?

6. What was the most disastrous military undertaking to the Athenians during the Peloponnesian War? And why?

7. Grote observes that it would have been better for Greece and for Athens if Callicratidas had been victor at Arginusae. Why?

8. What were *οἱ Ἀμφικτυονες*? Derive the name. Give an account of the most famous of them and of the part it played in Grecian affairs in the time of Demosthenes.

9. Name the great powers of the world at the time of the second Punic War.

10. The ethnological relationship of the Carthaginians.

11. The political objects of the Gracchi, and the causes of their failure.

12. Mommsen's estimate of the character of Cicero and of Julius Cæsar.

13. Explain the origin and the meaning of the terms:—[1] Patres Conscripti. [2] Populus Romanus. [3] Quirites. [4] Prisci Latini. [5] Jus Gentium.

14. An account of the offices of:—[1] *Dictator*. [2] *Tribunus Plebis*. [3] *Prætor Urbanus*. [4] *Prætor Peregrinus*.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

MONDAY, APRIL 7TH :—MORNING, 9 TO 12.

EUCLID—ARITHMETIC.

## FIRST YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. The square described on the hypotenuse of a right-angled triangle is equal to the sum of the squares described on the sides.

*a*. Construct a square equal to the difference of two given squares.

2. In any triangle the square of the side subtending an acute angle is less than the sum of the squares of the sides that contain it by twice the rectangle under either of them and the segment between the acute angle and the foot of the perpendicular let fall from the opposite angle.

3. Construct a square equal to a given rectangle.

4. If two circles intersect one another they cannot have the same centre.

*a*. Prove that the right line joining their centres is perpendicular to their common chord.

5. In a right-angled triangle the perpendicular on the hypotenuse divides the triangle into parts which are similar to the whole and to each other.

6. Similar triangles are to one another in the duplicate ratio of their homologous sides.

7. Find a mean proportional between two given lines.

8. Add together $3\frac{1}{2} + 5\frac{1}{3} + \frac{5}{12}$, subtract $2\frac{4}{5}$ from the result, and divide the remainder by $\frac{3}{4}$ of $2\frac{1}{2}$.

9. Divide .00567 by 3.01, and multiply the quotient by .001.

10. Find the interest on $4568 at $5\frac{1}{2}$ per cent for 7 months.

11. Find the square root of 3.14159.

12. Find the area in square feet of the ring enclosed between two concentric circles whose radii are 7 ft. 6 in. and 4 ft. 4 in. respectively.

13. The volume of a sphere (radius $= r$) being $\frac{4}{3}\pi r^3$, calculate the weight of a globe of lead 8 inches in diameter, the ratio of the weights of equal volumes of lead and water being 11.35, and a cubic inch of water weighing 252.5 grains.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 8TH :—MORNING, 9 TO 12.

TRIGONOMETRY—ALGEBRA.

## FIRST YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Prove the formula: $A'' = 206265\ A$

Where $A$ is the circular measure of an angle.

*a*. Prove that $A'' = \dfrac{A}{\sin 1''}$

2. The cosine of an angle is equal to the cosine of its supplement, but with an opposite sign.

3. Prove $\sin (A + B) = \sin A \cos B + \cos A \sin B$;

$\sin A = 2 \sin \frac{1}{2} A \cos \frac{1}{2} A$.

4. $\text{Cos}\ A = 1 - 2\ \text{Sin}^2 \frac{1}{2} A$.

5. In any triangle $\cos \frac{1}{2} A = \sqrt{\dfrac{s\,(s-a)}{b\ c}}$

6. State and prove the rules for the solution of right-angled triangles.

*a*. The two sides of a right-angled are 57 and 68 feet respectively, find the angles.

7. Find the circular measure of 30°.

8. Solve the equations:

$$a + x + \sqrt{a^2 + b\,x + x^2} = b\,;$$

$$\frac{2\,x}{x-4} + \frac{2\,x-5}{x-3} = 8\tfrac{1}{3}\,;$$

$$\frac{(2\,x+3)\,x}{2\,x+1} + \frac{1}{3\,x} = x + 1\,;$$

$$\frac{x}{a} + \frac{y}{b} = 1 - \frac{x}{c}$$

$$\frac{y}{a} + \frac{x}{b} = 1 + \frac{y}{c}$$

9. A cistern can be filled by two pipes, A and B in 24′ and 30′ respectively, and emptied by a third C in 20′, in what time would it be filled if all three were running together.

10. Multiply $x + 2\,y^{\frac{1}{2}} + z^{\frac{1}{3}}$ by $x - 2\,y^{\frac{1}{2}} + 3\,z^{\frac{1}{3}}$

11. Divide $x^3 + p\,x^2 + qx + r$ by $x - a$.

12. Find the greatest common measure of $2\,x^3 + 10\,x^2 + 14\,x + 6$ and $x^3 + x^2 + 7\,x + 39$.

13. Simplify $\dfrac{2\frac{1}{3} - \frac{1}{3}\,(x-2)}{\frac{1}{2}\,(x+1) - 4\frac{1}{2}}$

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

MONDAY, APRIL 7TH :—MORNING, 9 TO 12.

## EUCLID—ARITHMETIC.

*Examiner*.....ALEXANDER JOHNSON, LL.D.

1. If a line be divided into any two parts, the sum of the squares of the whole line and one part is equal to twice the rectangle under the whole line and that part together with the square of the other part.

*a.* The sum of the squares of any two lines exceeds the square of their difference by twice the rectangle under the lines.

2. Chords in a circle which are equally distant from the centre are equal, and equal chords are equally distant from the centre.

3. If two chords of a circle intersect, either inside or outside of the circle, the rectangles under their segments are equal.

4. About a given circle circumscribe a regular pentagon.

5. Equiangular triangles have the sides about the equal angles proportional and the sides opposite the equal angles are homologous.

*a.* If three lines intersect in the same point all parallel lines drawn across them are cut into segments which are in the same ratio.

6. Divide a line similarly to a given divided line.

*a.* Cut a line of given length into three parts which shall be to one another as $\frac{3}{4} : \frac{1}{2} : \frac{1}{5}$.

7. In equal circles or in the same circle angles whether they be at the centre or the circumference, are to one another in the same ratio as the arcs on which they stand.

8. If the velocities of sound and light be 1120 feet a second and 185,000 miles a second respectively, find the difference of the times occupied by each in travelling ten miles.

9. If the time of oscillation of a pendulum be proportional to the square root of its length, and the length of a pendulum which oscillates once in a second be 39.139 inches, what is length if time of oscillation be 4 seconds.

10. Express the ratio of £10 3s. 4d. to £37 5s. $6\frac{1}{2}$d. as a decimal.

11. Divide $4\frac{5}{6}$ by the difference between $\frac{3}{4}$ of 6 and 1.054.

12. Find a third proportional to .01 and .0001.

13. Extract the square root of .000356.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

TUESDAY, APRIL 8TH:—MORNING, 9 TO 12.

## TRIGONOMETRY—ALGEBRA.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. The sides of a triangle are $a = 1793$, $b = 1540$ and $c = 1727$, calculate the angle A.

2. At a certain point it is found that the sides $a$ and $c$ in the above triangle subtend the angles $25^\circ\ 40'$ and $53^\circ\ 24'$ respectively; calculate the distance of this point from A.

3. One side of a right-angled triangle is 350 feet long, and the adjacent angle is $35^\circ\ 5'\ 25''$; find the hypotenuse.

4. Find the fifth root of 57.685 by logarithms.

5. Prove $\sin A + \sin B = 2 \sin \frac{1}{2}(A+B) \cos \frac{1}{2}(A-B)$.

*a* Find similarly a value for $\sin A - \sin B$, and thence prove that
$$\sin^2 A - \sin^2 B = \sin (A+B) \sin (A - B).$$

6. If $\sin A = \frac{1}{2}$ find tan A and cot A.

7. Find the number of seconds in the unit of circular measure.

8. Solve the equations:—
$$x - \tfrac{1}{7}(y-2) = 5\ ;\ 4y - \tfrac{1}{3}(x+10) = 3.$$
$$\frac{11}{12x+11} + \frac{5}{6x+5} = \frac{7}{4x+7}$$
$$x = \tfrac{5}{2} + \tfrac{1}{12} x^2$$
$$x + \sqrt{a^2+x^2} = \frac{na^2}{\sqrt{a^2+x^2}}$$

9. Find the greatest common measure of
$$3x^3 - 22x - 15 \text{ and } 5x^4 + x^3 - 54x^2 + 18x.$$

10. Divide $x^5 - y^5$ by $x - y$ and verify the result by multiplication.

11. The sum of the two digits of a certain number is six times their difference, and the number itself exceeds six times their sum by three; find it.

12. A man could reap a field by himself in 20 hours, but with his son's help for six hours, he could do it in 16 hours, how long would the son be in reaping the field by himself.

13. If $\frac{a}{b} = \frac{c}{d} = \frac{e}{f}$ prove $\frac{a^2}{b^2} = \frac{a^2+c^2+e^2}{b^2+d^2+f^2}$

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

THURSDAY, APRIL 3RD :—MORNING, 9 TO 12.

## ASTRONOMY—OPTICS.

## THIRD YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Define Latitude and Longitude of a place, and of a star, Right Ascension, Declination, Azimuth, Altitude, Polar Distance, Prime Vertical.

2. Find how much nearer the Sun is to us in winter than summer, being granted that his distance in July is 93,000,000 miles when his diameter is 31'.30."2, and that his diameter on the 1st of January is 32'.34."6. Prove the truth of your process.

3. For celestial objects within 80° of the Zenith the correction for refraction varies as the tangent of the Zenith distance.

4. Explain the method of finding the latitude of a ship's place at sea.

5. The interval between two inferior conjunctions for Venus is 583.5 days, find hence by the aid of Kepler's laws the ratio of the distances of the Earth and Venus from the sun.

6. Explain the principle of Halley's method for finding the distance of the earth from the sun by a Transit of Venus.

*a*. At the transit of 1769, at Wardhoe the ingress of the planet took place at sunset and the egress at sunrise. At Otaheite the contrary happened. State and explain the effects on the duration of transit.

7. State Bode's law for the distances of the planets, and from it find the distance of Venus and Jupiter from the sun.

8. Find the dispersion produced by a prism of water of 4° angle, the refractive index of the red rays being 1.330 and of the violet rays 1.342.

9. A double convex lens of glass has the radii of its surface 7 inches and 12 inches respectively, find its focal length ($\mu = \frac{3}{2}$).

10. Define the centre of a lens, and find it. Explain the mathematical use of this point.

11. The flame of a candle two inches long is placed in length in front of a concave spherical reflector of three feet radius, at a distance of 10 feet; find position and magnitude of inverted image. If candle be moved towards mirror, at what point will the image become erect?

12. Find the focal length of the spectacles that must be used by a short-sighted person who reads a book at the distance of four inches, if he wishes to read it at the distance of twelve inches.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 4TH :—MORNING, 9 TO 12.

MECHANICS—HYDROSTATICS.

## THIRD YEAR.

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Two equal forces act on the same point, making with each other an angle of 120°. Find the magnitude and direction of the resultant.

2. Find the resultant in magnitude and direction of two parallel forces acting in the same direction.

*a.* Two weights of 120 lbs. and 230 lbs. respectively, are hung from the ends of a straight bar 25 inches long; find the segments into which the resultant divides the bar.

3. If there be 19 turns of a screw in $1\frac{5}{8}$ of an inch, and if the handle, 1 ft. 5 inch. long, be worked with a power of 2 cwt. 1 qr. and 17 lbs.; find the resistance.

4. A stone quarry is unwatered by the labour of 24 oxen, working 8 at a time on two whims for 8 hours a day; what should be the horse-power of a pumping engine which could do the same work, the work done by an ox in one minute being 15,588 foot-pounds.

5. Define a constant force; give some examples of it, and prove the following relations between $f$, $v$, $s$, and $t$,

$$v = ft\ ;\ s = \tfrac{1}{2} v t\ ;\ s = \tfrac{1}{2} f t^2\ ;\ v^2 = 2fs.$$

6. Find the time of oscillation of the simple pendulum.

7. State and prove the principle of Archimedes for floating bodies.

*a.* A cubical mass of iron (sp. gr. 7.25) weighing 22 lbs. is floating on mercury (sp. gr. 13.575); find the height of the part above the mercury.

8. Explain the method of finding the specific gravity of a liquid by the specific gravity bottle.

*a.* How is the weight of the bottle itself found exactly?

9. Investigate a formula for determining the weight of a given volume of moist air, at a given temperature and pressure, the specific gravity of aqueous vapour being 0.622.

10. If the diameter of the piston of a suction pump be $3\frac{1}{2}$ inches, the height of water in the head be 27 feet 5 inches above the well; if the lever handle be 48 inches, and the distance of the fulcrum to the end of the piston-rod 4 inches, calculate the force necessary to work the pump-handle.

11. If the elastic force of a mass of gas whose volume is 100 cubic inches be 30.275 inches of mercury; calculate its elastic force if it be allowed to expand to a volume of 387 cubic inches.

*12. A triangular slab of uniform thickness is supported at its three angular points; whatever be the form of the triangle, the pressures on the props are all equal.

*13. Find the power that will support a weight of 100 lbs. by means of a system of four pulleys, the strings being all parallel, and all attached to the weight, each pulley weighing 1 lb.

*14. Forces proportional to the sides of any plane polygon, acting perpendicularly to those sides at the middle points will equilibrate.

**Extra.*

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATION, 1873.

THURSDAY, APRIL 3RD:—MORNING, 9 TO 12.

### ASTRONOMY—OPTICS.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. State Bode's Law for the distance of the Planets from the Sun, and assuming the Earth's distance, calculate from it the distances of Mercury and Jupiter.

2. Investigate the method by which the mass of the sun is ascertained.

3. The synodic period of Jupiter is 398.8 days, hence calculate his periodic time, explaining the process.

4. State and explain the comparative lengths of day and night throughout the year at the Pole, the Equator, and latitudes equal to, greater or less than 66° 32′ north, illustrating the explanation by a diagram for each case.

5. Define parallax, and calculate its magnitude; what is the object of correcting for parallax?

6. Describe the Transit instrument and the manner in which the right ascensions of celestial objects are ascertained by it.

7. Investigate the principle of Hadley's Sextant. How would you ascertain the existence of an error in the position of the zero of the scale?

8. Describe the Astronomical Telescope, and find its magnifying power.

9. The focal length of a convex lens is 12 inches; find the size of the image of an object one inch in diameter, placed 14 inches from the lens.

10. Given the aperture of a lens, its focal length, and the dispersive power of the material; find the dispersion produced by it.

11. A river seems to he eight feet deep; what is its real depth? Investigate any formula employed.

12. Explain the formation of the image of an object by a convex mirror and find the relative magnitude and position of the two.

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATION, 1873.

FRIDAY, APRIL 4TH:—MORNING, 9 TO 12.

## MECHANICS—HYDROSTATICS.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. If three forces meeting in a point equilibrate each other, the sum of their moments with respect to any point is zero.

*a.* This is also true if the forces are parallel.

2. A bar of iron 15 inches long, weighing 12 lbs., and of uniform thickness, has a weight of 10 lbs. suspended from one extremity; where must the fulcrum be placed that the bar may just balance upon it?

3. Describe Smeaton's Pulley, and find the ratio of the Power to the Resistance.

4. If a force of 17 lbs. produce a velocity of 14 feet in a cubic foot of matter in one second, find the specific gravity.

5. Apply the principle of constancy of work done to find the ratio of the Power to the Resistance on the inclined plane.

6. Find the time of oscillation of the simple pendulum.

7. Explain the action of the pipette, and state the elastic force of the air in the upper part of it.

8. If 100 cubic inches of dry air at 60° Fah., and pressure 30 inches, weigh 31.0117 grains, what is the weight of air contained in a bottle whose volume is 4 cubic inches, the temp. being 65° and the pressure 28.5 inches?

9. How is the specific gravity of a liquid mixture found when the proportion of the component parts is given by *volume?* What condition is necessary to the application of the method?

10. Explain the method of finding the *absolute* weight of the body by the balance, *i. e.* deducting the effect of the air.

11. A piece of limestone, whose weight is 256.34 grains, weighs in water 159.13 grs., find its specific gravity.

12. Find the centre of pressure of a rectangular surface, one of whose sides coincides with the level of the liquid in which the surface is placed.

# McGILL COLLEGE, MONTREAL.

## B. A. AND THIRD YEAR EXAMINATIONS, 1873.

FRIDAY, APRIL 4TH:—2 TO 4 P.M.

## ELECTRICITY—SOUND.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Describe Groves' and Daniell's cells. Explain the advantage of using two liquids. Describe the process for amalgamating the zinc, and state the advantage of it.

2. Describe the Tangent Galvanometer, and the mode of using it. Prove that the intensity of the current is proportional to the tangent of the angle of deflection of the needle.

3. A battery is composed of 6 cells, the internal resistance of each being 3; the external resistance of the wire, &c., is 12; calculate the difference in the intensities of the current when the cells are arranged in a single row (zinc of one joined to copper of next), and when they are in two rows of three cells each (the zinc plates in the corresponding cells of each row being united, &c.)

4. Explain fully the cause of the bright flash on *breaking* the current through a large electro-magnet.

5. Describe the mode of charging a Leyden jar by the Rhumkorff coil.

*a*. Describe Foucault's mercurial contact-breaker for the coil.

6. State the fundamental laws for the action of one electrical current on another, and describe the method of proving them.

7. Describe the method of slow discharge of the Leyden jar, and explain it.

8. What is meant by the harmonics of the primary tone in a vibrating string? State the physical cause of them.

*a*. Describe Meldes method of exhibiting nodes and ventral segments in a vibrating string.

9. Explain on mechanical principles the fact that a tuning fork in vibration will cause another at a distance to sound, if it give the same note.

10. When a gas-flame in a tube causes the tube to sound, how would you show that there is a series of extinctions and re-lightings of the flame.

11. State generally the relative velocities of sound in air, water, wood and iron.

# McGILL COLLEGE, MONTREAL.

B. A. AND THIRD YEAR EXAMINATIONS, 1874.

Friday, April 3rd.—2 to 4 P.M.

## ELECTRICITY—SOUND.

Examiner.....ALEXANDER Johnson, LL.D.

1. Describe Grove' and Daniell's cells. Explain the advantage of using two liquids. Describe the process for amalgamating the zinc, and state the advantage of it.

2. Describe the Tangent Galvanometer and the mode of using it. Prove that the intensity of the current is proportional to the tangent of the angle of deflection of the needle.

3. A battery is composed of 6 cells, the internal resistance of each being 3; the external resistance of the wire, &c., is 12; calculate the difference in the intensities of the current when the cells are arranged in a single row (zinc of one joined to copper of next), and when they are in two rows of three cells each (the zinc plates in the corresponding cells of each row being united, &c.)

4. Explain fully the cause of the bright flash on shortly the current through a large electro-magnet.

5. Describe the mode of charging a Leyden Jar by the Electrical Coil.

6. Describe Faraday's mercurial contact-breaker for the coil.

7. State the fundamental laws for the action of one electrical current on another, and describe the method of proving them.

8. Describe the method of allow the charge of the Leyden Jar, and explain it.

9. What is meant by the harmonics of the primary tone in a vibrating string? State the physical causes of them.

10. Describe Melde's method of exhibiting nodal and ventral segments in a vibrating string.

11. Explain on mechanical principles the fact that a tuning fork in vibration will cause another at a distance to sound if it give the same note.

12. When a gasflame in a tube causes the tube to sound how would you show that there is a series of extinctions and re-lightings of the flame.

13. State generally the relative velocities of sound in air, water, wood and iron.

McGILL UNIVERSITY, MONTREAL.

# McGILL UNIVERSITY, MONTREAL.

## SPECIAL EXAMINATION IN MATHEMATICS AND NATURAL PHILOSOPHY.

*Students in Civil Engineering.*

TUESDAY, APRIL 22ND:—MORNING, 9 TO 12.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. State the laws of adhesion, and describe the method of proving them by the Tribometer.

2. Find the relation between the Power and Resistance in the Screw, taking friction into account.

*a.* If the interval between the threads be $\frac{1}{11}$th of an inch, the diameter of the screw 2 inches, and the diameter of the circle described by the Power, which is 13 lbs., be 2 feet, find the Resistance (1) neglecting friction, (2) considering the friction.

3. A carriage wheel whose weight is $W$ and radius $r$, rests upon a level road, find the force necessary to draw the wheel over an obstacle of height $h$.

4. A handle with an arm 2 feet long, turns an endless screw, which works a wheel with 60 teeth; and a chain supporting a weight of 5 tons. is coiled upon the shaft of this wheel, the shaft being 6 inches in diameter, what force must be applied to the handle to balance this weight?

5. Two bodies, imperfectly elastic, whose masses are M and M′ are moving in the same line and in the same direction, with velocities V and V′ respectively, and come into collision. Find their velocities after impact.

6. A descending weight $P$ draws a weight $Q$ up an inclined plane, whose height and length are $h$ and $l$, by a cord passing over a pully at the top of the plane; find when the cord should be cut in order that the weight $Q$ may just ascend to the top of the plane.

7. A roof $A\,C\,B$ is wholly composed of beams forming isosceles triangles of which $A\,B$ is the base; find the horizontal thrust on the side walls.

8. A body $A$ weighs in air 7.55 lbs., in water 5.17 lbs., and in another liquid $B$, 6.35 lbs., find the specific gravities of $A$ and $B$.

9. Find the difference of level between two places at which the barometric pressures were observed to be 31.725 and 27.84 inches, the temperatures being 65° 75 and 54° 25 respectively, the temp. of the air and of the mercury being the same.

10. Investigate an approximate formula for finding the distance of the sea-horizon in miles.

11. A line 500 yards long was measured on one bank of a river and the angles at its extremities contained by it and lines drawn to a tree on the other bank were found to be 79° 23′ and 54° 22 find the perpendicular distance of the tree from the line.

# McGILL COLLEGE, MNOTREAL.

SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 22ND :—MORNING, 9 TO 12.

GEOMETRY.

HONOUR EXAMINATION.

## FIRST YEAR.

*Examiner*,.....ALEXANDER JOHNSON, L. L.D.

1. Describe a circle which shall pass through a given point and cut orthogonally two given circles.

2. If a hexagon be inscribed in a circle, the intersections of the three pairs of opposite sides lie on the same straight line. Prove th d reciprocate the theorem.

3. The distance of any two points from the centre of a given circle are to one another as the distance of each point from the polar of the other.

4. Describe a triangle which shall have its vertices on three given straight lines and its sides tangents to a given circle.

5. Through a given point draw a straight line so as to form with the sides of a given angle a triangle of given area.

6. If perpendiculars be drawn from any point on the circumference of a circle to the sides of an inscribed triangle, their feet are in the same straight line.

7. Given the bases, in magnitude and position, of any number of triangles having a common vertex, and the sum of their areas, find the locus of their vertex.

8. If three concurrent straight line lines be drawn from the vertices of a triangle to the opposite sides, the segments of any one side are in a ratio compounded of the ratios of the segments of the other two.

9. If two anharmonic pencils with different vertices have one leg common, and the same anharmonic ratio, the intersections of the three pairs of corresponding legs will lie in the same straight line.

10. The three perpendiculars of a triangle intersect in a point.

11. Find a point such that if any line be drawn through it and perpendiculars let fall on this from $n$ given points, the sum of the perpendiculars shall be zero.

12. Given the sum of the squares on two lines, find them when their sum is a maximum.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1871.

FRIDAY, APRIL 25TH:—MORNING, 9 TO 12.

ALGEBRA.

HONOUR EXAMINATION.

## FIRST YEAR.

*Examiner*.....ALEXANDER JOHNSON, LL.D.

1. Resolve $\frac{1}{(x+a)\ (x+b)\ (x+c)}$ into its partial fractions.

2. Given $y = ax + bx^2 + cx^3 + dx^4 +$ find $x$ in a series of powers of $y$ by the method of Indeterminate Coefficients.

3. Find the middle term of the expansion of $(1+x)^{2n}$.

4. Express $\frac{3+\sqrt{7}}{2}$ in a continued fraction.

5. Find the sum of the series

$$1^2 + 2^2 + 3^2 + \ldots\ldots + n^2$$

6. Define the base of the Napierian system of logarithms and calculate it.

7. Find the present value of an annuity of £20 a year, to commence in 10 years, and then to continue 11 years, reckoning 4 per cent. per annum compound interest.

8. There is a lottery containing black and white balls, from each drawing of which it is as likely that a black will arise as a white one; what is the chance of drawing 11 balls all white?

9. Insert seven geometric means between 2 and 13122.

10. If $a, b, c$ be three terms in Harmonical Progression, show that $a^2 + c^2$ is greater than $2\,b^2$.

11. Find how many different Permutations can be formed from the letters of the word "Algebra," taken all together.

12. Solve the equation

$$x - 1 = 2 + \frac{2}{\sqrt{x}}$$

23. Find in the senary scale the equivalent of 17486 which is in the denary scale.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 22ND:—MORNING, 9 TO 12.

ALGEBRA—TRIGONOMETRY.

HONOUR EXAMINATION.

## SECOND YEAR.

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Show that the equation $x^4 + x^2 - 8x - 15 = 0$ has two real roots of contrary signs, and that it cannot have more real roots; and that they lie between $-2$ and 3.

2. The equation $x^6 - 3x^5 + 6x^3 - 3x^2 - 3x + 2 = 0$ has equal roots; solve it.

3. Solve the equation $x^5 - 4x^4 + x^3 + x^2 - 4x + 1 = 0$.

4. State Sturm's theorem, and apply it to the equation $x^4 + 2x^2 - 4x + 10 = 0$.

5. Calculate by Horner's method the real roots of the equation $x^3 + x - 3 = 0$.

6. Find the sum of the fourth powers of the roots of $x^5 - 3x^3 - 5x + 1 = 0$.

7. Prove that if $m$ be odd

$$2^m \cos^m \alpha = 2 \cos m\alpha + 2m \cos (m-2)\alpha + 2\frac{m(m-1)}{1.2} \cos (m-4)\alpha + \&c., \text{ to } \tfrac{1}{2}(m+1) \text{ terms.}$$

8. Find the number of different values comprised in the function $\cos \frac{2m\pi + \alpha}{n}$ when successive integral values are assigned to $m$.

9. Assuming that for the spherical excess

$$\text{Cot } \tfrac{1}{2} \text{ E} = \frac{\cot \frac{1}{2} a \cot \frac{1}{2} b + \cos C}{\sin C}$$

Prove $\cot \frac{1}{2}$ E $= \dfrac{1 + \cos a + \cos b + \cos c}{2\sqrt{\sin s \sin (s-a) \sin (s-b) \sin (s-c)}}$

10. In any spherical triangle

$$\text{Sin } \tfrac{1}{2} A = \sqrt{\frac{\sin (s-b) \sin (s-c)}{\sin b \sin c}}$$

11. State and prove Demoivre's property of the circle.

12. Calculate the determinant

$$\begin{vmatrix} 5, & -10, & 11, & 0 \\ -10, & -11, & 12, & 4 \\ 11, & 12, & -11, & 2 \\ 0, & 4, & 2, & -6 \end{vmatrix}$$

13. If two rows or two columns of a determinant are identical, the determinant vanishes.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

MONDAY, APRIL 25TH:—MORNING, 9 TO 12.

ANALYTIC GEOMETRY—CALCULUS.

HONOUR EXAMINATION.

## SECOND YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. In all conic sections the radius of curvature is equal to the cube of the normal divided by the square of the semi-parameter.

2. If any line cut two similar and concentric conics its parts intercepted between the conics will be equal.

3. Show that the locus of the centres of equilateral hyperbolæ through three given points is the circle through the middle points of the sides of the triangle formed by joining the points.

4. Give Boole's proof that if we transform the equation of the second degree from one set of oblique axes to another, the quantities

$$\frac{a+b-2h\cos\omega}{\sin^2 w} \text{ and } \frac{ab-h^2}{\sin^2\omega}$$

remain unaltered.

5. Draw a normal to an ellipse or hyperbola passing through a given point.

6. Find in trilinear co-ordinates the equation of the circle circumscribing the triangle formed by the lines $\alpha=0$, $\beta=0$, $\gamma=0$.

7. Find the locus of the intersection of tangents to a circle at the extremities of a chord whose length is constant.

8. Given three fixed lines meeting in a point, if the three vertices of a triangle move one on each of these lines, and two sides of the triangle pass through fixed points, prove that the remaining side passes through a fixed point.

9. Define differential co-efficient, and find those of $\sin x$, $\log x$, and $a^x$.

10. If $u$ be a function of $z$, and $z$ a function of $x$ prove

$$\frac{du}{dx}=\frac{du}{dz}\,\frac{dz}{dx}$$

11. Expand $e^{\sin x}$ by MacLaurin's Theorem.

12. Inscribe the greatest ellipse in a given isosceles triangle.

13. Find the value of $\frac{x^x-x}{1-x+\log x}$ if $x=1$.

14. Find the integrals

$$\int_x \frac{x^2}{a+bx+cx^2}\,;\quad \int \frac{x}{(x+2)(x+3)^2}\,;\quad \int_x \frac{1}{a+b\cos^2 x}.$$

15. Prove Bernouilli's series

$$\int_x u = ux - \frac{x^2}{1.2}\frac{du}{dx} + \frac{x^3}{2.3}\frac{d^2u}{dx^2} + \ldots\ldots$$

$$\pm \int \frac{d^n u}{x^n}\cdot\frac{x^n}{1.2.3\ldots n}$$

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

WEDNESDAY, APRIL 2ND :—MORNING, 9 TO 1.

### LUNAR THEORY—NEWTON'S PRINCIPIA.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Investigate the differential equation of the moon's radius vector.

$$\frac{d^2u}{d\theta^2} + u = \frac{P}{h^2\,u} - \frac{T}{h^2\,u^3}\frac{du}{d} - 2\left(\frac{d^2u}{d\theta^2} + u\right)\int\frac{T}{h^2\,u^3}\,d\theta.$$

2. Describe the process of integration of the differential equations of the Moon's motion, noticing any caution to be observed; and investigate the rule for the retention of terms of the higher orders when seeking an approximate solution of the equations to any given order.

3. After obtaining the solution, to the first order, of the equation in the first question

$$u = a\{1 + e\cos(\theta - \alpha)\}$$

we are obliged to modify it before proceeding to the next approximation. Explain why, and state the hypothesis involved in the modification employed. Show that this modification might have been suggested by a proposition in the "Principia."

4. Calculate the values of $P$, & $T$, to the second order; and thence obtain $\frac{P}{h^2\,u^2}$ and $\frac{T}{h^2\,u^3}$:—

$$\frac{P}{h^2\,u^2} = a\left\{\begin{array}{l} 1 - \frac{3}{4}k^2 + \frac{3}{4}k^2\cos 2(g\theta - \gamma) - \frac{1}{2}m^2[1 + 3\cos(2 - 2m) \\ \theta - 2\beta] - \frac{3}{2}m^2 e'\cos(m\theta + \beta - \zeta) + \frac{3}{2}m^2 e\cos(c\theta - \alpha) \\ + \frac{9}{4}m^2 e\cos\{(2 - 2m - c)\theta - 2\beta + \alpha\} \end{array}\right\}$$

$$\frac{T}{h^2\,u^3} = -\frac{3}{2}m^2\left\{\begin{array}{l} \sin[(2 - 2m)\theta - 2\beta] - 2e\sin\{(2 - 2m - c)\theta + \\ 2\beta + \alpha\} + \frac{5}{2}e^2\sin\{(2 - 2m - c)\theta - 2\beta + \alpha\} \end{array}\right\}$$

5. Calculate the value of $c$ to the third order.

6. In the equation

$$\theta = pt + 2e\sin(cpt - \alpha) + \tfrac{5}{4}e^2\sin(2cpt - \alpha) + \tfrac{15}{4}\sin\{(2 - 2m - c) + pt - 2\beta + \alpha\} + \&c.$$

explain the physical meaning of the last three terms taken together.

7. Consider the effects of the ablatitious force on the inclination of the Moon's orbit in Newton's manner.

8. Show that if the Moon's orbit were originally circular, the disturbing force would cause it to assume the form of an oval with its major axis in quadratures, and find the ratio of its axes.

9. Give Newton's explanation of the precession of the equinoxes.

10. A body revolves in an ellipse under the action of a force tending to a focus; find the law of force.

11. If any number of bodies revolve around a common centre of force which varies inversely as the square of the distance, the latera recta of the orbits are as the squares of the areas described in the same time.

12. Find the motion of a system of bodies mutually attracting one another with forces varying as their distances.

*Vivâ Voce* at 3 P.M.

McGILL UNIVERSITY, MONTREAL.

B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1872.

WEDNESDAY, APRIL 3rd:—MORNING, 9 TO 1.

LUNAR THEORY—NEWTON'S PRINCIPIA.

Examiner, ..... PROFESSOR JOHNSON, LL.D.

1. Investigate the differential equation of the moon's radius vector.

2. Describe the process of integration of the differential equation of the Moon's motion, noticing any equation to be observed; and investigate the rule for the retention of terms of the higher orders when seeking an approximate solution of the equations to any given order.

3. After obtaining the solution, to the first order, of the equation in the first question

$$u = \alpha \{1 + \varepsilon \cos (\theta - \varpi)\}$$

we are obliged to modify it before proceeding to the next approximation. Explain why, and state the hypothesis involved in the modification employed. Show that this modification might have been suggested by a proposition in the "Principia."

4. Calculate the values of $\frac{d^2 u}{d\theta^2}$, $\frac{d^3 u}{d\theta^3}$, to the second order; and thence obtain $\frac{d^2 u}{d\theta^2}$ and $\frac{d^3 u}{d\theta^3}$ to the same order.

5. Calculate the value of $\frac{du}{d\theta}$ to the second order.

6. In the equation

explain the physical meaning of the last three terms before integration.

7. Consider the effects of the ablutionary force on the inclination of the Moon's orbit to Newton's measure.

8. Show that if the Moon's orbit were originally circular, the disturbing force would cause it to assume the form of an oval with its major axis in quadratures, and find the ratio of its axes.

9. Give Newton's explanation of the precession of the equinoxes.

10. A body revolves in an ellipse under the action of a force tending to a focus; find the law of force.

11. If any number of bodies revolve around a common centre of force which varies inversely as the square of the distance, the latera recta of the orbits are as the squares of the areas described in the same time.

12. Find the motion of a system of bodies mutually attracting one another with forces varying as their distance.

TIME:—Two to 3 P.M.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

FRIDAY, APRIL 19TH:—MORNING, 9 TO 12.

### MECHANICS.

*(FIRST PAPER.)*

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Assuming the equations of motion of a rigid body about a fixed point when there are no impressed forces:—

$$A\frac{d\omega_1}{dt} - (B-C)\,\omega_2\,\omega_3 = 0.$$

$$B\frac{d\omega_2}{dt} - (C-A)\,\omega_3\,\omega_1 = 0.$$

$$C\frac{d\omega_3}{dt} - (A-B)\,\omega_1\,\omega_2 = 0.$$

deduce Poinsot's representation of the motion by means of the momental ellipsoid.

2. Determine the motion of the body in the above question when two of the principal moments at the fixed point are equal.

3. Determine the equations of motion of a particle, taking account of the earth's rotation, the axes of co-ordinates being fixed in the earth.

α. Apply them to find approximately the motion of a particle dropped from a height $h$.

4. A hemisphere performs small oscillations on a perfectly rough horizontal plane: find the motion.

5. State and prove the principle of Vis Viva; and enumerate the different kinds of forces which may be disregarded in forming the equation.

6. A body that can turn freely round a fixed axis receives a blow; find the condition that there shall be a centre of percussion, and determine its position.

7. Prove (1) That the motion of the centre of gravity of a system acted on by any forces is the same as if all the mass were collected at the centre of gravity and all the forces applied at that point parallel to their former directions.

(2) That the motion of a body, acted on by any forces, about its centre of gravity, is the same as if the centre were fixed and the same forces acted on the body.

8. If $l$ and $h$ be the distances of the centres of oscillation and gravity of a mercurial pendulum of which the weight is $m$, from the axis of suspention, and $h'$ be the distance of the centre of gravity of a small quantity of mercury $u$ by the addition of which the pendulum is made to vibrate seconds exactly, $L$ the length of the seconds pendulum and $r$ the radius of the cylinder containing the mercury, show that

$$\frac{u}{m} = \frac{4h(l-L)}{4h'(L-h') - r^2}$$

9. A rectilinear tube revolves with a uniform angular velocity about one extremity in a horizontal plane: find the motion of a particle within the tube.

10. A cylinder descends a perfectly rough inclined plane by its own weight, its axis being horizontal: determine the motion of the cylinder and the friction at any time of its descent.

11. Find the moment of inertia of an ellipsoid about a principal diameter.

8. If $k$ and $h$ be the distances of the centres of oscillation and gravity of a torsional pendulum of which the weight is $m$ from the axis of suspension, and $h'$ be the distance of the centre of gravity of a small quantity of mercury $v$ by the addition of which the pendulum is made to vibrate seconds exactly, $L$ the length of the seconds pendulum and $r$ the radius of the cylinder containing the mercury, show that

$$\frac{v}{m} = \frac{4\,h\,(k-h)}{4\,h'\,(L-h') - r^2}$$

9. A rectilinear tube revolves with a uniform angular velocity about one extremity in a horizontal plane: find the motion of a particle within the tube.

10. A cylinder descends a perfectly rough inclined plane by its own weight, its axis being horizontal; determine the motion of the cylinder and the friction at any time of its descent.

11. Find the moment of inertia of an ellipsoid about a principal diameter.

# McGILL UNIVERSITY, MONTREAL.

## I. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

FRIDAY, APRIL 19TH :—AFTERNOON, 2 TO 5.

### MECHANICS.

(*SECOND PAPER.*)

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Investigate the general equations of fluid motion, including the equation of continuity.

2. If the forces be such that $X\,dx + Ydy + Zdz$ is an exact differentia of some function of the co-ordinates, and if the motion is such that at any time $udx + vdy + wdz$ is an exact differential, then it will be so always.

3. A hollow cylinder of indefinite length is filled with homogeneous air a portion of which is disturbed in such a manner that all the particles in any section perpendicular to the axis are under the same initial circumstances of displacement; investigate the resulting motion.

4 Investigate the vibrations of a string tightly stretched between two fixed points, and show the existence of nodes and ventral segments.

5 In a liquid a body is floating which is symmetrical with respect to a vertical plane through its centre of gravity, a small initial displacement parallel to this plane is given to it, determine the small resulting oscillations in the case where the vertical and angular displacements may be regarded as independent of each other.

6. Show that a curve such that a particle under the action of gravity will descend any arc of it from a given point in the same time as it takes to descend the chord of that arc, is the Lemniscate of Bernouilli.

7. Investigate the motion of the conical pendulum.

8. A heavy particle is projected in the air with a given velocity and in a given direction, making a small angle with the horizontal plane; assuming that the resistance of the air varies as the square of the velocity, find the path approximately.

9. Find the tangential and normal accelerations at any instant of a point moving in any curve.

10. Define the potential function $V$, and prove that at any internal point $(a, b, c,)$ of the attracting mass, about which the density is $\rho$, it satisfies the equation :

$$\frac{d^2 V}{d a^2} + \frac{d^2 V}{d b^2} + \frac{d^2 V}{d c^2} = -4\pi\rho$$

11. If $V$ be the potential of any mass $M$, and if $M_0$ be the portion of $M$ contained within a closed surface $S$, $dS$ an element of $S$, $dn$ an element of the normal drawn outwards at $dS$, prove that

$$\iint \frac{dV}{dn} dS = -4\pi M_0$$

the integral being taken throughout the whole surface $S$.

12. Assuming the equations

$$X = \frac{2\pi\rho x}{\lambda^3}\{(1+\lambda^2)\tan^{-1}\lambda - \lambda\}$$

$$Y = \frac{2\pi\rho y}{\lambda^3}\{(1+\lambda^2)\tan^{-1}\lambda - \lambda\}$$

$$Z = \frac{4\pi\rho z}{\lambda^3}\{\lambda - \tan^{-1}\lambda\}(1+\lambda^2)$$

and supposing the earth to be a homogeneous fluid, the ratio of the equatorial to the polar diameter being $\sqrt{1+\lambda^2}$; prove the equation.

$$(3+\lambda^2)\tan^{-1}\lambda = 3\lambda + 2 \text{ e } \lambda_3$$

and find the numerical value of $\lambda$ taking $g = 32$, time of rotation 23 hours56 minutes, and diameter of earth as 8000 miles.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

FRIDAY, APRIL 25TH:—MORNING, 9 TO 12.

## GEOMETRY OF THREE DIMENSIONS.

*Examiner*.....ALEXANDER JOHNSON, LL.D.

1. Find the differential equation of the envelope of a sphere of constant radius, whose centre moves on any curve.

2. Find the equation of a cylinder, the direction cosines of whose edges are $l$, $m$, $n$, and which envelopes the quadric $Ax^2 + By^2 + Cz^2 = 1$.

3. Define Conoidal Surfaces, and form their partial differential equation.

4. The radius of curvature of any curve is given by the formula,

$$\rho^2 = \frac{ds^2}{\left(d\frac{dx}{ds}\right)^2 + \left(d\frac{dy}{ds}\right)^2 + \left(d\frac{dz}{ds}\right)^2}$$

5. Find the equation of the osculating plane of any curve.

6. Define the indicatrix, and show that any tangent plane to a surface is intersected by a consecutive tangent plane in the diameter of the indicatrix which is conjugate to the direction in which the consecutive point is taken.

7. The sum of the reciprocals of the radii of curvature of two normal sections of a surface at right angles to each other is constant.

8. Prove that the differential equation of lines of curvature is

$$\begin{vmatrix} dx, & dy, & dz, \\ L, & M, & N, \\ dL, & dM, & dN, \end{vmatrix} = 0$$

9. If a plane be drawn through the centre parallel to any tangent plane to a quadric, the axes of the section made by that plane are parallel to the normals to the two confocals through the point of contact.

10. Show from the equation of the hyperboloid of one sheet that there are two systems of right lines lying on its surface, and that no two belonging to the same system lie in the same plane.

11. Find the equation of the cone whose vertex is $x'$, $y'$, $z'$, and which stands on the conic in the plane of $xy$,

$$\frac{x}{a^2} + \frac{y^2}{b^2} = 1$$

12. The points on the plane of $xy$ which *correspond* to the intersection of ellipsoid with a series of confocal surfaces, form a series of confocal

conics, of which the points corresponding to the um s bilicare the comomn foci.

13. Find the centre of the surface,

$$x + 2y^2 + 3z^2 + 2(xy + yz + zx) + x + y + z = 1$$

14. If three straight lines at right angles to each other touch the ellipsoid,

$$\frac{x^2}{a^2} + \frac{z^2}{b^2} + \frac{z^2}{c^2} = 1$$

and intersect each other in the points $x', y', z'$, show that

$$x'^2(b^2 + c^2) + y'^2(c^2 + a^2) + z'^2(a^2 + b^2) = b^2c^2 + c^2a^2 + a^2b^2$$

15. Find the equation of the surface generated by a right line resting on three other lines, no two of which are in the same plane.

B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

MONDAY, APRIL 7TH.—MORNING, 9 TO 12.

CALCULUS.

Examiner.....ALEXANDER JOHNSON, LL.D.

1. If $x = a^{\theta}$ and $\mathrm{D} = \frac{d}{d\theta}$, be represented by D then

$$x^n \frac{d^n u}{dx^n} = \mathrm{D}\,(\mathrm{D}-1)\,(\mathrm{D}-2)\,\ldots\,(\mathrm{D}-n+1)\,u$$

2. Prove that the equation

$$u = a^{\theta}\phi(\mathrm{D})\,a^{\theta}u + a a^{\theta}\phi(\mathrm{D})\,\phi(\mathrm{D}-1)\,a^{\theta}u + \ldots$$
$$+ a^n a^{\theta}\phi(\mathrm{D})\,\phi(\mathrm{D}-1)\ldots\phi(\mathrm{D}-n+1)\,a^{\theta}u + \ldots = V$$

may be resolved into a system of equations of the form

$$u - \psi(\mathrm{D})\,a^{\theta}u = \mathrm{U}$$

the values of being determined by the equation

$$q^n + a_1 q^{n-1} + a_2 q^{n-2} + \ldots + a^n = 0$$

3. Find by the symbolical method the solution of the equation

$$\frac{d^n u}{dx^n} + n^2 u = x^2$$

4. Investigate the condition to which a and $\psi$ must be subject, in order that $u = \chi(v)$ may be a first integral of an equation of the form

$$Rr + Ss + Tt = V$$

where R, S, T, V, u and v are functions of x, y, p and q, and $\chi$ is an arbitrary function.

5. Integrate the approximate equations for the horizontal motion of a pendulum when the earth's rotation is taken into account, viz:

$$\frac{d^2x}{dt^2} - 2r\frac{dy}{dt} + \frac{gx}{l} = 0$$
$$\frac{d^2y}{dt^2} + 2r\frac{dx}{dt} + \frac{gy}{l} = 0$$

where l, g and r are constants.

6. Find the complete solution of the equations

$$(3y + 2x)\,dx + dy + dz = 0$$
$$(2y + 3x)\,dx + 2\,dy - dz = 0.$$

7. Show that the curve in which the radius of curvature varies as the cube of the normal is a conic section.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

MONDAY, APRIL 27TH :—MORNING, 9 TO 12.

### CALCULUS.

*Examiner*.....ALEXANDER JOHNSON, LL.D.

1. If $x = e^{\theta}$ and if $\frac{d}{d\theta}$ be represented by $D$ then

$$x^n \frac{d^n u}{dx^n} = D\,(D-1)\,.\,.\,.\,.\,(D-n+1)\,u$$

2. Prove that the equation

$$u = a_1 \phi(D)\, e^{\theta} u + a_2 \phi(D)\, \phi(D-1)\, e^{2\theta} u\,.\,.\,.$$
$$+ a_n \phi(D)\, \phi(D-1)\,.\,.\,.\,\phi(D-n+1)\, e^{n\theta} u = V$$

may be resolved into a system of equations of the form

$$u - q\,\phi(D)\, e^{\theta} u = U$$

the values of being determined by the equation

$$q^n + a_1 q^{n-1} + a_2 q^{n-2} \,.\,.\,.\,. + a_n = 0$$

3. Find by the symbolical method the solution of the equation

$$\frac{d^2 u}{dx^2} + n^2 u = X$$

4. Investigate the condition to which $u$ and $v$ must be subject, in order that $u = f(v)$ may be a first integral of an equation of the form

$$Rr + Ss + Tt = V$$

where $R$, $S$, $T$, $V$, $u$ and $v$ are functions of $x$, $y$, $z$, $p$ and $q$, and $f$ is an arbitrary function.

5. Integrate the approximate equations for the horizontal motion of a pendulum when the earth's relation is taken into account, viz :

$$\frac{d^2 x}{dt^2} - 2r\frac{dy}{dt} + \frac{gx}{l} = 0$$
$$\frac{d^2 y}{dt^2} + 2r\frac{dx}{dt} + \frac{gy}{l} = 0$$

where $l, g$ and $r$ are constants.

6. Find the complete solution of the equations

$$(5y + 9z)\,dx + dy + dz = 0$$
$$(4y + 3z)\,dx + 2\,dy - dz = 0$$

7. Show that the curve in which the radius of curvature varies as the cube of the normal is a conic section.

8. Find the complete primitive and the singular solution of the equation

$$n\,x^3\frac{d^2y}{dx^2} = \left(y - x\frac{dy}{dx}\right)^2$$

9. Investigate a method of solving the linear differential equation of the $n$th order when the second member is 0.

10. Find the conditions of integrability of the differential function of the first order between three variables

$$Pdx + Qdy + Rdz$$

*a.* Integrate

$$du = \frac{ydx}{a-z} + \frac{xdy}{a-z} + \frac{xydz}{(a-z)^2}$$

11. Eliminate the arbitrary function from the equation

$$u = x^m f\left(\frac{x}{y}, \frac{y}{z}, \frac{z}{x}\right)$$

12. Transform $\frac{d^2\phi}{dx^2} + \frac{d^2\phi}{dy^2} = 0$ into an equation in which the independent variable is $r$, being given $x^2 + y^2 = r^2$.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1873.

MONDAY, APRIL 27TH :—AFTERNOON, 2 TO 5.

### EXPERIMENTAL PHYSICS.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Describe the experiment by which Professor Stokes proposed to determine whether the vibrations in a polarized ray of light are parallel or perpendicular to the plane of polarization.

2. Describe Newton's experiment exhibiting the colour of thick plates and explain it. Show that if the screen be shifted along the axis of the mirror, the rings are sections of an hyperboloid of revolution.

3. Explain the production of diffracted fringes by a single edge, and compute their places for different positions of the luminous point, and of the screen.

4. Explain the rectilinear propagation of light on the principles of the wave theory.

5. Give Huygen's construction for the directions of the two refracted rays in the case of double refraction.

6. State the difficulty which the explanation of the phenomena of dispersion presented to the wave theory of light, and Cauchy's mode of overcoming it.

7. Describe Dulong and Petit's method for determining the specific heat of a body by its time of cooling, and Regnault's limitation of it.

8. State Newton's law of cooling with Dulong and Petit's limitation of it.

9. Describe Tyndall's experiments on the relation of gases and vapour to radiant heat.

10. Give Wheatstone's method for determining the electromotive force of a cell of a Voltaic battery.

11. Describe the principle of Wheatstone's method for determining the velocity of electricity.

12. Describe Foucault's experiment for determining the velocity of light.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 25TH:—MORNING, 9 TO 12.

ALGEBRA.

Honour Examinations.

## FIRST YEAR.

*Examiner*, .....ALEXANDER JOHNSON, LL.D.

1. Resolve $\frac{1}{(x+a)(x+b)(x+c)}$ into its partial fractions.

2. Given $y = a + bx + cx^2 + dx^3 +$ find $x$ in a series of powers of $y$ by the method of Indeterminate Co-efficients.

3. Find the middle term of the expansion of $(1+x)^{2n}$

4. Express $\frac{3+\sqrt{7}}{2}$ in a continued fraction.

5. Find the sum of the series

$$1^2 + 2^2 + 3^2 + \ldots\ldots + n^2$$

6. Define the base of the Napierian system of logatithms, and calculate it.

7. Find the present value of an annuity of £20 a year, to commence in 10 years, and then to continue 11 years, reckoning 4 per cent. per annum compound interest.

8. There is a lottery containing black and white balls, from each drawing of which it is as likely that a black ball will arise as a white one; what is the chance of drawing 11 balls all white?

9. Insert seven geometric means between 2 and 13122.

10. If $a$, $b$, $c$, be three terms in Harmonical Progression, show that $a^2 + c^2$ is greater than $2b^2$.

11. Find how many different Permutations can be formed from the letters of the word "Algebra," taken all together.

12. Solve the equation

$$x - 1 = 2 + \sqrt{\frac{2}{x}}$$

13. Find in the senary scale the equivalent of 17486 which is in the denary scale.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

### ENGLISH LITERATURE.

### FIRST YEAR.

WEDNESDAY, APRIL 9TH :—MORNING, 9 to 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L

1. Mention the four periods of English History.

2. What benefits are the people of England supposed to have derived from the Romans, during the period of their occupation of the country ?

3. Which are the two influences that during the Middle Ages modified more or less all the relations of life ?

4. Give a brief account of the Anglo-Saxon emigrations to England.

5. Which were the two events that are held as closing the history of European society during the Middle Ages ?

6. Give the substance of what is said respecting the old Celtic productions of Ireland.

7. Mention the principal ancient productions of the Cymric Celts.

8. Mention the principal events in the legendary history of King Arthur, and explain how it happened that his history formed so great a part of the early Romance literature.

9. How do you account for the fact that the Anglo-Saxons almost utterly rejected, in their literature, the ancestral legends which were at once the poetry and the history of their contemporaries ?

10. State the arguments on the question—" which of the dialects of the Anglo-Saxon is specifically the parent of the English language ?"

11. Translate and parse the following sentences :—

"We sculon get, of ealdum leasum spellum the sum bispell reccan. Hit gelamp gió thaete ân hearpere waes on thaere theode the Thracia hâtte. Tha ongann monn secgan be thàm hearpere thaet he mihte hearpian thaet se wudu wagode for tham swege and wilde deor thaer woldon to-irnan and standan swilce hi tàme waeron swa stille theàh hi menn oththe hundes with eodon thaet hi hi ná ne onscunedon. Thà saedon hi thaet thaes hearperes wif sceolde acwelan and hire sawle mon sceolde leadan to helle."

12. Translate the following sentences (Semi-Saxon) into English and into Anglo-Saxon :—

" Hi swencten the wreccce men of the land, mid castelweorces. Tha the castles waren maked, tha fylden hi mid yfele men. Tha namen hi tha men the hi wenden thaet ani gód hefden bathe be nihtes and be daeies ?

13. Mention the rules given in regard to the versification of Chaucer.

14. Give some account of the Norman-French Romances and of the authors and translators of them.

15. Give the substance of the remarks on William Occam and Duns Scotus.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

### ENGLISH LITERATURE.

WEDNESDAY, APRIL 9TH:—MORNING, 9 TO 12.

*Examiners*,..... { VEN. ARCHDEACON LEACH, D.C.L.
REV. JOHN COOK, D.D.

1. Which were the four languages that during the Anglo-Saxon period were used in Literature?

2. Give some account of the principal persons who during that period cultivated Latin learning.

3. Describe the natural course in which the development of Literature among a people takes place.

4. What reasons may be assigned for the peculiar character of Anglo-Saxon Literature.

5. Give some account of the Anglo-Saxon Historical Poems that are believed to have been composed before the beginning of the emigrations to England.

6. Give some account of the Poem of Caedmon.

7. Explain what Alfred did for Anglo-Saxon Literature.

8. State the date, character and author of the poem called Ormulum.

9. Give an account of the origin of Printing in England.

10. Give the substance of the remarks on the Saxon Chronicle and the Records of that description.

11. Mention the principal events that mark the thirteenth century as a decisive epoch for the constitutional history and intellectual progress of England.

12. Give some account of the principal metrical productions in Scotland in the living tongue, about the end of the 14th and the beginning of the 15th centuries.

13. Give the substance of the remarks on the language spoken in the South-Eastern Counties of Scotland during the latter part of the 14th century.

14. When did the language of Scottish Literature become different from that of English? In the poems of what writer does the difference first become quite apparent?

15. Mention generally what the difference between Anglo-Saxon grammar and English grammar consists in.

16. How is it accounted for that all the Modern Gothic tongues deviate less widely from their originals than do the Modern Classical tongues from the Latin?

17. Enumerate the Anglo-Saxon inflections of Nouns and Verbs that are retained in the present English.

18. Mention the several *classes of words* that, still in common use, are Anglo-Saxon.

19. Give the substance of the remarks on the question, "What proportionof the Anglo-Saxon words have we lost?"

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

### RHETORIC.

### THIRD YEAR.

WEDNESDAY, APRIL 9TH :—MORNING, 9 TO 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give Whately's definition of Persuasion, and his analysis of the subject

2. Give the classification of the Active principles of human nature as found in Stewart's Outlines.

3. How may it be accounted for that the idea of unfair artifice should be so commonly associated with Rhetorical Persuasion ?

4. When Aristotle speaks of appeals to the Passions as an unfair mode of influencing the hearers, how is his language to be explained ?

5. Show the advantage of copious detail in Description for the purpose of Persuasion, and explain the subject of Indirect Description.

6. Give an example of and explain the Rhetorical Figure—climax.

7. Explain the two Methods—the Exaggerating and the Extenuating.

8. Show the importance of arrangement for the purpose of Persuasion.

9. Explain the process denominated, Diversion of Feelings.

10. Give the substance of the remarks on Eloquence as being Relative.

11. Give the substance of the remarks on charge of Inconsistency.

12. State the rules and suggestions for avoiding the faults of too great conciseness and too great proxlixity.

13. Explain the different effects, in regard to energy or vivacity of style, of the use of general terms, and those more specific or singular.

14. Give the substance of Whately's remarks on the subject of the sound of words as echo to the sense.

15. Give examples of Antithesis end of Mock-Antithesis.

16. Whately says that the ultimate and of Poetry is to give pleasure: — give your opinion of the subject.

17. If Poetry be distinguishable from Prose, show what the difference nsists in.

# McGILL UNIVERSITY, MONTREAL.

B. A. ORDINARY EXAMINATION, 1873.

ENGLISH ( MARSH'S LECTURES).

WEDNESDAY, APRIL 9TH :—MORNING, 9 TO 12.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. How may the comparatively late origin of English Literature be accounted for?

2. Give some examples to show how the Anglo-Saxon and the Latin or French have exerted a reciprocal influence.

3. Mention the principal criteria for the determination of the origin of English words.

4. Give some comparative estimate of the losses and gains that our language has had, in the one case by the dropping of Anglo-Saxon words, and in the other by the admission of foreign words.

5. Give the substance of the remarks on the use of language "somewhat archaic."

6. Mention some of the instances given in the comparison of the Anglo. Saxon translation of the Gospels with that of the received version, showing the power of derivation and composition of the A.-S. tongue.

7. What objections lie against the use, in scientific nomenclature, of words taken from the vocabulary of common life?

8. What are the conservative influences that have kept the present English from material changes?

9. Give the substance of the remarks on the origin of Inflections.

10. Mention and explain the principal causes of the corruption of a language.

11. Mention the principal historical facts in regard to Rhyme, and the remedy that Marsh suggests for the infirmity of our language in that respect

12. Define the prosodial processes,—Rhythm, Meter, Alliteration.

13. Mention the true result to be aimed at in Translations.

14. State Marsh's objections to a revision at present of the English Bible.

# McGILL UNIVERSITY, MONTREAL,

## B. A. HONOUR EXAMINATIONS IN ENGLISH, 1873.

WEDNESDAY, APRIL 2ND :—MORNING, 9 A. 12.

### LANGUAGE (ANGLO-SAXON).

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. State the general rules for the declensions of Anglo-Saxon nouns.

2. Decline the definite article " se, seo', thaet." Which is the other definite article, and how is it employed ?

3. Give the duals of the pronouns " Ic and Thu'."

4. How are the three declensions distinguished ?

5. How are the names of nations that have no singular declined ?

6. Decline the irregular nouns " Mann, bro'thor, faeder."

7. Give the comparatives and superlatives of " After, forth, innweard, uppeweard, sith."

8. Mention the different ways in which adjectives are formed.

9. Which are the words generally used for the relatives " who, which, that " ?

10. Give the cardinal and the ordinal numbers to fifteen and fifteenth.

11. Conjugate the verb " baernan " (simple order) and the auxiliaries " wesan " and " beo'n."

12. Give the substance of what is said " on the origin and formation of verbs."

13. Show what peculiarities of construction are in the following expressions—" Eall thaet folc ara's and sto'don—tha' waes sum consul Boetius wa'es ha'ten—he se biscop—calles his maegnes—hit thaes cildes wa'es—utan biddan God."

14. How are Rhythm and Meter distinguished ?

15. Translate the following passage :—

Hit gela'mp on sumum daege, thatha Godes englas comon, and on his gesihthe stodon, tha waes eac swice se scucca him betwux. To tham cwaeth Drihten, Hwanon come thu ? Se scucca and wyrde, Ic ferde geond thas eorthan and hi beeode. Drihten cwaeth, Ne beheolde thu l'a minne theowan Iob tha'et nan man nis his gelica on eorthan, bilewite man and rihtwis ondraedende God and yfel forbugende. Swa stod se deofal on Gode's gesihthe, swa swa de'th se blinda on sunnan. Ses sunna ymbscinth tho'ne blindan and se blinda ne gesihth thaere sunna leoman. God geseah thoue deofol and se deofol swatheah wa'es bedaeled Godes gesihthe and his wuldres.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN ENGLISH, 1873.

### LANGUAGE.

WEDNESDAY, APRIL 2ND :—AFTERNOON, 2 TO 5.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Describe the different areas within Great Britain in which the two Celtic dialects, and the Anglo-Saxon tongue were spoken at the time of the Norman Conquest.

2. What in England was the fate of the Celtic language in consequence of the Teutonic invasions, and what inference as to their extent may be drawn from it ?

3. What are the philological considerations that serve to prove a connection between the Saxons that invaded England and the territory between the Rhine and the Elbe ?

4. What parts of England were most largely occupied by the Danes, and what traces of their language are perceptible in the present English ?

5. Give some account of King Alfred's exertions to promote the education of his people.

6. Give some account of the distinguished ecclesiastics that promoted the cultivation of literature in England during the Anglo-Saxon period.

7. Mention the different periods during which, in a marked degree, words from the Latin were received directly into the English tongue.

8. Mention the principal changes as to inflection that characterise the Semi-Saxon as compared with the Anglo-Saxon.

9. When was the language commonly spoken in England first authoritatively used in the Courts of Law ?

10. Mention the different periods during which Latin words through the French tongue were received in a marked degree into the English.

11. Account for the changes that have taken place in most of the modern languages of Europe, and particularly in the English, in regard to the rejection of inflectional forms for the expression of relations.

12. Give some examples to show the changes that have taken place in the meaning of English words.

13. Give the substance of Dr. Trench's remarks on the subject of Phonography.

14. Give some examples to show how erroneous etymologies have given rise to alterations in spelling, " which are for the worse."

15. Give some examples to show how English words that have fallen out of use have had a revival.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN ENGLISH, 1873.

### ENGLISH LITERATURE.

FRIDAY, APRIL 18TH :—MORNING, 10 TO 1

*Examiner*,.....VEN. ARCHDEACON, LEACH, D.C.L.

1. Mention the principal causes or conditions that serve to promote the cultivation of Literature among a people.

2. Mention the principal causes that modify the character of a people's Literature.

3. State and explain the general Canons of literary criticism.

4. What special reasons may be assigned to account for the fact that so few relics of Celtic Literature remain?

5. Give some account of the origin, object and character of the historical chronicles, Celtic, Anglo-Saxon and Latin.

6. Give some account of the occupation and influence of the professional Bards.

7. Give a short analysis of the poem of Beowulf, and mention and describe the class that it resembles most closely.

8. How do you account for the chimerical and supernatural character commonly found in the early poetical productions of a people?

9. Mention the different classes into which the remains of Anglo-Saxon poetry may be divided and the principal works referable to each class.

10. What are the earliest specimens that remain of Anglo-Saxon prose.

11. Mention (with some historical notice of each) the principal writers in Latin that, during the 12th and 13th centuries, gave an impetus to the cultivation of classical learning in England.

12. State the different theories in regard to the origin of Romantic fiction.

13. Give the substance of Warton's remarks on the sucject.

14. Give the substance of Craik's remarks on the English Metrical Romance, and mention the principal productions of that description.

15. Trace the connection between the Provençal poetry and that of some of the English poets.

16. Give a short analysis and a description of the poem, "the Vision of Piers Ploughman."

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN ENGLISH, 1873.

### ENGLISH LITERATURE.

FRIDAY, APRIL 18TH :—AFTERNOON, 2 TO 5.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give an analysis, with critical remarks, of Chaucer's House of Fame.

2. Mention and explain the two predominating influences by which literature was affected in the early part of the sixteenth century.

3. Give some account of the writings of Sir Thomas More.

4. Give a historical sketch of the drama in the Middle Ages and of its beginnings in the sixteenth century.

5. State the dramatic unities, and estimate the value or importance of each.

6. Give the substance of Dr. Craik's remarks on "The Mirror for Magistrates."

7. Give a short analysis of Sir David Lindsay's "Satire of the Three Estates"—with critical remarks on the works of that author.

8. Mention the principal works of George Buchanan;—in what estimation is he held as a historian and as a Latinist?

9. Enumerate the principal authors that flourished between the middle of the reign of Elizabeth and the Restoration.

10. Give the substance of Dr. Johnson's criticism on the Metaphysical poets.

11. Give some account of the Hudibras of Butler—its object, form and style.

12. Explain the design and leading idea of the First book of Hooker's Ecclesiastical Polity; its style and literary merits.

13. Mention the theologians most distinguished for their literary merits during the times of Charles and the Commonwealth—with special notice of Jeremy Taylor and his works.

14. Give the substance of Hallam's remarks on the composition of Hobbes.

15. Give an analysis (with critical remarks) of Shakespeare's Macbeth.

16. Give the substance of Bacon's Essay on the subject of "Unity in Religion."

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN ENGLISH, 1873.

### ENGLISH HISTORY.

THURSDAY, APRIL 24TH:—MORNING, 11 TO 1.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. What inducements had the Romans, or their leader, to undertake the first invasion of England?

2. Mention the principal beneficial effects upon the condition of the ancient Britons that resulted from the Roman occupation.

3. Give some account of Egbert and his position as Ruler of Britain.

4. Give some account of the origin, extent, and effects of pilgrimages.

5. State the evidence in regard to the existence of Christianity before the mission of St. Augustine.

6. What were the origin and condition of Theows or Thralls among the Anglo-Saxons?

7. Give some account of the orders of the Dominicans and Franciscans —of their influence in England as cultivators of learning.

8. Mention the relations that subsisted between the temporal Sovereigns and the Popes in the latter part of the eleventh century.

9. Give the history and state the object of the Domesday Book.

10. Give some account of the Plantagenet family before the accession of Henry II.

11. Give an outline of the life and works of Anselm.

12. Mention the causes of the contests between Henry and Becket, and the results of the contests.

13. Mention the chief political and social results of the Crusades for England.

14. Describe the antecedent events and acts that led to the grant of Magna Charta.

15. Mention the leading events in the history of De Montfort.

16. Give an account of the ceremony of Homage, and mention the historical significance of Investitures and the Pallium.

17. In what respects was Feudalism in England modified by William the Conqueror?

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN ENGLISH, 1873.

### ENGLISH HISTORY.

THURSDAY, APRIL 24TH:—AFTERNOON, 2 TO 5.

*Examiner*,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give some historical account of Edward I. before his coronation in 1274.

2. What circumstances may be pleaded in justification of his wars against the Welsh?

3. State the case as to the claims of England to paramount sovereignty over Scotland, and the circumstances of the Crown trial in regard to the succession to the Crown of Scotland after the death of Alexander III.

4. Give the history of the Statute called the Confirmation of the Charters.

5. Give the principal provisions of the writ of Habeas Corpus.

6. When was the English claim of feudal sovereignty over Scotland first formally relinquished?

7. State the foundation of Edward III's claim to the throne of France—the ground of its illegality?

8. Give some account of the Statutes called, the Statute of Mortmain, Statute of Provisions, Statute of Præmunire.

9. Mention the principal events in the history of the fifteenth century, generally.

10. Give some account of the origin and action of the Court of Star Chamber.

11. Mention the causes and the conclusion of the Thirty Years' War.

12. Mention the chief provisions of the law termed, the Petition of Right,

13. Mention the immediate causes of the Civil War in 1642.

14. Mention some of the circumstances that show the extended power of England and her influence in European politics during the Commonwealth.

15. What were the leading idea and endeavour of James II.? and mention the events that immediately preceded his abdication.

16. Mentiou the principal conditions in the act of "Union of England and Scotland.

# McGILL UNIVERSITY, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

THURSDAY, APRIL 10TH:—AFTERNOON, 2 TO 5.

### LOGIC.

### SECOND YEAR.

*Examiner*,.....REV. J. CLARK MURRAY.

1. Define (*a*) *genus*, (*b*) *species*, (*c*) *genus summum*, (*d*) *genus subalternum*, (*e*) *species infima*.

2. (*a*) Distinguish *extension* and *intension*. (*b*) Explain the ratio which they hold to each other.

3. Define (*a*) *relative*, (*b*) *concrete*, (*c*) *abstract*, terms.

4. Of the following terms state which are relative, which concrete, which abstract: *Creator*, *Beauty*, *Beautiful*, *Cause*, *Audacity*, *Benevolence*, *Employer*.

5. (*a*) Define the three parts of which every proposition is composed. (*b*) Distinguish these three parts in each of the propositions: *No one is free who is enslaved by his appetites*, and *Great is Diana of the Ephesians*.

6. Explain what is meant by the *quantity*, what by the *quality* of a proposition.

7. Give the sign for each of the following propositions:
(*a*) A straight line is the shortest between two points;
(*b*) All horses are quadrupeds;
(*c*) Some quadrupeds are horses;
(*d*) Some quadrupeds are not horses;
(*e*) Some horses are swift;
(*f*) No man is sinless.

8. Distinguish *explicative* and *ampliative* propositions.

9. Of the following propositions state which are explicative, which ampliative:
(*a*) Quadrupeds are four-footed animals;
(*b*) Horses are quadrupeds;
(*c*) Logic is useful;
(*d*) Logic is the science of the formal laws of thought.

10. Give the contradictory, the contrary, and the subalternate, of the proposition: *No men are sinless*.

11. Convert the propositions given under Question 7.

12. Distinguish the different terms and propositions of the following syllogism: "A sensualist is enslaved by his appetites: no one is free who is enslaved by his appetites; and, therefore, no sensualist is free."

13. (*a*) Explain what is meant by the *figure* of a syllogism. (*b*) Distinguish the different figures.

# McGILL UNIVERSITY, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

THURSDAY, APRIL 10TH: AFTERNOON 2 TO 5.

MORAL PHILOSOPHY.

## THIRD AND FOURTH YEARS.

*Examiner*,.....REV. J. CLARK MURRAY.

1. (*a*) Define *active power*. (*b*) State Stewart's classification of the active powers.

2. State the circumstances by which appetites are distinguished from the other active powers.

3. State the considerations adduced to prove that the moral faculty is not resolvable into self-love.

4. Of what three things are we conscious on being spectators of a good or bad action ?

5. State the respective theories of Hobbes, of Cudworth, and of Hutcheson, regarding the origin of our moral ideas.

6. (*a*) State the two premises of the argument from design for the existence of Deity. (*b*) Which of these was attacked in ancient, which has been attacked in modern, times ? (*c*) Point out the reason of the difference.

7. (*a*) Describe the three theories on the origin of evil. (*b*) Distinguish the two forms of the third, mentioning which is adopted by Stewart.

8. (*a*) Distinguish *moral* and *physical* evils. (*b*) State some of the considerations which may account for the existence of each class of evils in harmony with the benevolence of the Creator.

9. State some of the evidences for a future state derived from the human constitution, and from the circumstances in which man is placed.

10. State (*a*) Hume's doctrine regarding the nature of justice, (*b*) the principal argument in its support, (*c*) Stewart's reply.

11. State the different opinions of the Ancients concerning the Sovereign Good.

12. Explain (*a*) the definition of virtue attributed to Pythagoras, (*b*) the apparent paradox of Aristotle, that where there is self-denial, there is no virtue.

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATION, 1873.

THURSDAY, APRIL 10TH:—AFTERNOON, 2 TO 5.

## MENTAL PHILOSOPHY.

*Examiner*,.....REV. JOHN COOK, D.D.

1. What, in an act of consciousness, may be conceived to belong to the subject; what, to the object?

2. (*a*) Distinguish *sensation proper* and *perception proper*. (*b*) In which of the senses is the former, in which is the latter, predominant?

3. What is the true ground of distinction between the *primary* and the *secondary qualities* of body?

4. Distinguish the *true* and the *apparent field of vision*; and give reasons for supposing that the apparent perception is not part of the original faculty of sight.

5. State Locke's view of the origin of our ideas, (*a*) as understood by the French philosophers, (*b*) as understood by Mansel.

6. State the two questions which are said to exhaust the theory of morals, and answer the first.

7. State and explain the logical laws which are the conditions of all thought.

8. Does it follow, that, because there is a logical division of the products of thought, there must be a corresponding division of mental faculties; and if not, why not?

9. State and explain the Law of Preference in regard to the Association of Ideas.

10. How does Mansel explain the Principle of Substance and the Principle of Cause?

# McGILL UNIVERSITY, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 25TH:—MORNING, 9 TO 12.

PRE-SOCRATIC PHILOSOPHY OF GREECE.

## THIRD YEAR.

HONOUR EXAMINATION.

*Examiner*,.....REV. J. CLARK MURRAY.

1. (*a*) What may be regarded as common to all the earlier Ionic philosophers? (*b*) State the special fundamental doctrine of each.

2. By whom was the word ἀρχή first used to describe the elementary principle, from which all things originate, and into which they are resolvable?

3. (*a*) What is the source of uncertainty in our knowledge of Pythagoras? (*b*) In what century did he live? (*c*) Where was he born? (*d*) Where did he establish his school? (*e*) What was the nature of his school? (*f*) Name its chief adherents.

4. (*a*) State the general principle of the Eleatics. (*b*) Explain the prominently theological character of this principle, as held by Xenophanes.

5. State any of Zeno's arguments to prove the impossibility (*a*) of plurality, (*b*) of motion.

6. "War is the father of all things." (*a*) Of whose doctrine is this an expression? (*b*) Explain the expression in connection with the general drift of his philosophy.

7. (*a*) Who originated the doctrine of four elements? (*b*) What forces did he suppose to account for the production of all things from these elements? (*c*) Point out the relation of his philosophy to the Eleatic and the Heraclitean.

8. State the doctrines of Democritus with regard to (*a*) the elements of which all things are composed, (*b*) the *plenum* and the *vacuum*, (*c*) the cause by which the elements are moved.

9. Compare the philosophy of Democritus with that of Anaxagoras.

10. Describe the relation of Sophistic (*a*) to previous philosophy, (*b*) to the general life of the time; and (*c*) name some of the more eminent Sophists.

# McGILL UNIVERSITY, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

TUESDAY, APRIL 22ND :—MORNING, 9 TO 12.

MILL'S LOGIC, BOOK III.

## THIRD YEAR.

HONOUR EXAMINATION.

*Examiner*,..... .....REV. J. CLARK MURRAY.

1. Define *Induction.*

2. (*a*) Would it be correct to apply the term Induction to the inference that the three angles of a triangle are equal to two right angles, because this is proved in the case of the particular triangle A B C? [*b*] Give the reason for your answer.

3. What is the fundamental principle [the ultimate major premiss], assumed in every induction?

4. Explain at length what is meant by the *cause* of a phenomenon in any inductive inquiry.

5. State the four *experimental methods.*

6. The observation, that the apparent distance of a body increases as the angle formed by the optic axes becomes smaller, and decreases as that angle becomes greater, has led to the inference that the apparent distance is the effect of the angle formed by the optic axes. Which of the experimental methods does this inference exemplify?

7. Distinguish the three modes of explaining the laws of nature.

8. The law of suggestion by contrast, which the older psychologists regarded as ultimate, may be explained as due to the combined operation of two general laws of suggestion. Which of the above modes does this exemplify?

9. [*a*] Distinguish *derivative* and *ultimate laws.* [*b*] By what must the number of ultimate laws be determined?

10. State the proper use of scientific hypotheses, illustrating by an example.

11. Define an *empirical law*, illustrating by an example.

12. (*a*) Mention any uniformities of co-existence not dependent on causation. (*b*) Show that their evidence is the same as that of empirical laws.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATION, 1873.

THURSDAY, APRIL 17TH:—MORNING, 9 TO 12.

### FRENCH.

## FIRST YEAR.

*Examiner*,.....P. J. DAREY, M.A., B.C.L.

1. Translate into English:

*Acaste.* Que vous semble d'Adraste?
*Célimène.* Ah! quel orgueil extrême!
C'est un homme gonflé de l'amour de soi-même.
Son mérite n'est jamais content de la cour;
Contre elle il fait métier de pester chaque jour;
Et l'on ne donne emploi, charge ni bénéfice,
Qu'à tout ce qu'il se croit on ne fasse injustice.
*Clitandre.* Mais le jeune Cléon, chez qui vont aujourd'hui
Nos plus honnêtes gens, que dites-vous de lui?
*Célimène.* Que de son cuisinier il s'est fait un mérite,
Et que c'est à sa table à qui l'on rend visite. [1]
*Eliante.* Il prend soin d'y servir des mets fort délicats
*Célimène.* Oui; mais je voudrais bien qu'il ne s'y servît pas:
C'est un fort méchant plat que sa sotte personne,
Et qui gâte à mon goût tous les repas qu'il donne.

MOLIÈRE, *le Misanthrope*, A. II sc. V.

[1] What grammatical mistake is there in this line?

2. Describe the different characters mentioned in the above extract. What is there especially ridiculous in the character of Alceste?

3. Translate into English the following sentences from *le Misanthrope*:

Je vois que vos appas vous suivent en tous lieux. C'est ce qui doit rasseoir votre âme effarouchée. La bienveillance de ses pareils importe. Dans tous les propos qu'il tient on ne voit jamais goutte. Aux conversations même il trouve à reprendre. Votre esprit se gendarme toujours contre tout ce qu'on dit. Cela fait assez voir que l'amour dans les cœurs n'est pas toujours produit par un rapport d'humeurs. Le déchaînement de toute la nature ne m'accablerait pas comme cette aventure. Voilà certainement des douceurs que j'admire.

4. Write in full the primitive tenses of: *acquérir*, *vaincre*, *mouvoir*, *absoudre* and *craindre*.

5. What are the two forms of the first participles of the verbs *résoudre* and *bénir*? When are they to be used? What difference is there between *florissant* and *fleurissant* and also between *repartir* and *répartir*?

6. Where do you place the adverb in French? Give two examples.

7. Translate the adverb *much* in the following phrases: I know as much as you. How much does that book cost? How much? It comes much to the same. I make much of this young man. I admire you so much! Do you like wine much? Do you like much wine?

8. Translate into French:

The walls of this ancient castle are built with lime and cement. To listen with joy to a slanderer and to a applaud him, is to cherish the serpent that stings in order that he may sting more effectually. His affairs go from bad to worse. The sheep quietly feed on the grass under the care of the shepherd and the dogs. Are my scissors ground? From labour springs health, from health contentment, source of every joy. Let us not give offense by airs of haughtiness. Everybody laughs at his expense.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

THURSDAY, APRIL 17TH :—MORNING, 9 to 12.

### FRENCH.

*Examiner*,.....P. J. DAREY, M.A., B.C.L.

Translate into French :—

1. The sides of the mountains were covered with trees, the banks of the brooks were diversified with flowers ; every blast shook spices from the rocks, and every month dropped fruits upon the ground. All animals that bite the grass, or browse the shrubs, whether wild or tame, wandered in this extensive circuit, secured from beasts of prey by the mountains which confined them. On one part were flocks and herds feeding in the pastures, on another all the beasts of chase frisking in the lawns : the sprightly kid was bounding on the rocks, the subtle monkey frolicking in the trees, and the solemn elephant reposing in the shade. All the diversities of the world were brought together, the blessings of nature were collected, and its evils extracted and excluded.....

In a year the wings were finished, and on a morning appointed, the maker appeared furnished for flight on a little promontory : he waved his pinions a while to gather air, then leaped from his stand and in an instant dropped into the lake. His wings, which were of no use in the air sustained him in the water, and the prince drew him, half dead with terror and vexation.

JOHNSON'S, *Rasselas.*

*Or*,

*Mrs. Hard.* I vow, Mr. Hardcastle, you're very particular. Is there a creature in the whole country but ourselves that does not take a trip to town now and then, to rub off the rust a little ? There's the two Miss Hoggs, and our neighbour, Mrs. Grigsby, go to take a month's polishing every winter.

*Hard.* Ay, and bring back vanity and affectation to last them the whole year. I wonder why London cannot keep its own fools at home ! In my time, the follies of the town crept slowly among us, but now they travel faster than a stage-coach. Its fopperies come down not only as inside passengers, but in the very basket.

*Mrs. Hard.* Ay, your times were fine times indeed ; you have been telling us of them for many a long year. There we live in an old rumbling mansion that looks for all the world like an inn, but that we never see company. Our best visitors are old Mrs. Oddfish, the curate's wife, and little Cripplegate the lame dancing master, and all our entertainment your old stories of Prince Eugene and the Duke of Malborough. I hate such old fashioned trumpery.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATION, 1873.

THURSDAY, APRIL 17TH:—MORNING, 9 TO 12.

FRENCH.

## THIRD YEAR.

*Examiner*,.....P. J. DAREY, M.A., B.C.L.

*Toutes les réponses devront être faites en français.*

1. Faites connaître le caractère de la littérature française au XVIII siècle. Montrez en quoi elle diffère de celle du siècle précédent.

2. Quels sont les quatre auteurs les plus remarquables du XVIII siècle ? Dans quel genre de littérature se sont-ils illustrés ?

3. De quel incident de l'histoire romaine Corneille a-t-il tiré sa tragédie d'*Horace*? Quelle est l'idée fondamentale de cette tragédie? Quelle différence y a-t-il dans les deux rôles de *Camille* et de *Sabine*? Laquelle deux tragédies le *Cid* et *Horace* préférez-vous ? Sur quoi fondez-vous cette préférence ?

4. Traduisez en anglais *Horace*, Acte III, sc. 1re. depuis : *Prenons parti* jusqu'à, *les vainqueurs sans horreur.*

5. Traduisez en anglais :

Je venais parler de vous. Je venais de parler de vous. Je venais à parler de vous. Venez me prendre. Je viens d'écrire. Nous en sommes venus aux coups. Faites-le venir. En êtes-vous venus là ? Je vous vois venir. Où voulez-vous en venir ? Il me vient une idée. Je le verrai venir. Il se fait bien venir de tout le monde.

6. Traduisez en français :

Let them laugh that win. All is well that ends well. It is aiming at impossibilities. He is very cross to-day. To lay up something for a rainy day. The least said is the soonest mended.

7. Traduisez en français :—

The next day we were visited by Mr. Burchell, though I began, for certain reasons, to be displeased with the frequency of his return; but I could not refuse him my company and fireside. It is true, his labour more than requited his entertainment; for he wrought among us with vigour, and, either in the meadow or at the haytick, put himself foremost. Besides he had always something amusing to say, that lessened our toil, and was at once so out of the way, and yet so sensible, that I loved, laughed at, and pitied him. My only dislike arose from an attachment he discovered to my daughter. He would in a jesting manner, call her his little mistress; and when he bought each of the girls a set of ribands, hers was the finest. I knew not how, but he every day seemed to become more amiable, his wit to improve, and his simplicity to assume the superior air of wisdom.

GOLDSMITH'S, *Vicar of Wakefield.*

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATION, 1873.

THURSDAY, APRIL 17TH :—MORNING, 9 TO 12.

### FRENCH AND HISTORY.

*Examiner*.....P. J. DAREY, M.A., B.C.L.

1. Traduisez en anglais :—Boileau, Art Poétique, Chant III. *La tragédie*, jusqu'aux mots : *La faiblesse latine.*

2. Faites connaître l'origine des représentations scéniques en France.

3. Vers quel temps ces représentations se détachent-elles du culte ?

4. Faites connaître les causes qui ont contribué à la décadence des mystères.

5. De quelle époque date l'existence d'un théâtre permanent ?

6. Qui était à la tête de cette entreprise ? Qui a établi peu de temps après la tragédie dans toute sa grandeur ?

7. De combien de chants L'Art Poétique de Boileau se compose-t-il ? Quel but l'auteur s'y est-il proposé ? Quelle loi prescrit-il pour chaque composition poétique ? Quelle méthode recommande-t-il aux écrivains ? Et quels modèles doivent-ils suivre ?

8. Traduisez en français :—

Wherever I went, I found that poetry was considered as the highest learning, and regarded with a veneration somewhat approaching to that which man would pay to angelic nature. And yet it fills me with wonder that, in almost all countries, the most ancient poets are considered as the best: whether it be that every other kind of knowledge is an acquisition gradually attained and poetry is a gift conferred at once, or that the first poetry of every nation surprised them as a novelty and retained the credit by consent, which it received by accident at first; or whether, as the province of poetry is to describe nature and passion, which are always the same, the first writers took possession of the most striking objects for description and the most probable occurrences for fiction, and left nothing to those that followed them but transcription of the same events, and new combinations of the same images. Whatever be the reason, it is commonly observed that the early writers are in possession of nature, and their followers of art; that the first excel in strength and invention, and the latter n elegance and refinement. JOHNSON, *Rasselas Chap.* 10.

*Hard.* And I love it. I love every thing that's old : old friends, old times, old manners, old books, old wines ; and, I believe, Dorothy, (taking her hand) you'll own I have been pretty fond of an old wife.

GOLDSMITH, *She stoops to conquer.*

2. Name the verbs after which *pas* may be suppressed. Give three examples.

3. What does the subjunctive mood express ? State four cases when it is to be used, and give an example of each.

4. Translate into French the following sentences ; and explain fully how the past participles are to be written in French :

I admire this actress ; I saw her applauding.
I admire this actress ; I saw her applauded.
This lady sings well ; I have heard her sing.
This ballad is pretty ; I have heard it sung.

5. Translate into English : PHÈDRE, Acte II, Scène V. from :—*Oui prince* to *retrouvée ou perdue.*

*Or,*

BRITANNICUS Acte I, Scène II from :—*Vous m'avez* to *ses premières années.*

6. From what ancient author did Racine take the subject of his tragedy *Phèdre ?* Who was Hippolyte ? What was his character ? Relate what is tragical in this piece.

*Or* answer to the same question substituting *Britannicus* for *Phèdre* and *Nero* for *Hippolyte.*

7. In how many periods is the French Literature commonly divided ? State when each commences, and when it ends. Who where the *Troubadours*, and the *Trouvères* ?

8. Mention two historiens of the first period—one of the second and two of the third. Name one poëte of the first period, two of the second and three of the third ; and state the principal works of all those writers.

# McGILL UNIVERSITY, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 18TH:—AFTERNOON, 2 TO 5.

GERMAN.

### JUNIOR CLASS.

*Examiner*,.....C. F. A. MARKGRAF, M.A.

1. Translate into English:—

(*a*) The three last stanzas of „Mein Vaterland" by Koerner, p. 63.
(*b*) Fragment from „Dornröschen" by Gebrüder Grimm, pages 78–79.

2. Decline in the Sing. and Plural:—derſelbe Mann welcher; jene junge Künſtlerinn; ein altes, tapferes (valliant) Volk (leave out „ein" in the plural).

3. Give the gender, meaning and Nominative Plural of Wald, Pallaſt, Meer, Stuhl, Standuhr, Baumgarten, Farbe, Saal, Uebung, Vergnügen, Macht, Boot, Freundſchaft, Ort, Gelegenheit, Fehler, Speiſe, Türke, Wunder, Pflicht, Mauer, Geſchäft.

4. When are *ordinal* numbers used as substantives? Give two examples.

5. Conjugate, giving the 2nd and 3rd Sing. and the 2nd Plural of all tenses of the Indicative:—tragen, mitgehen, and ſich beſchäftigen.

6. Translate into *idiomatic* German:—what o'clock is it? a quarter to nine; half past twelve; a quarter past ten; half an hour; six months ago; in nine months; in the forenoon; the other day; to go on horseback; to travel by water; to arrive by the train.

7. Parse, and give the Present Infinitives of gethan, ſchnitt, rieſeſt, gewandt, dachte, liehen, batet, verließ, ſieht, mochteſt, ergriffen, zog auf, geholfen, ſchien, geſungen.

8. Write down the irregular forms of leiden, abhalten, biegen, ſterben, ſchlagen, fangen, verzeihen, brechen, ſenden.

9. *a*. State the case (or cases) governed by the following prepositions:—neben, zu, ſeit, zwiſchen, wider, auf, über, für, hinter, unter, vor, nach. *b*. Give two examples, where the prepositions "*of*" and "*out of*" are rendered by „von" in German.

10. Mention *eight* conjunctions which form dependent clauses.

11. Correct the following sentences:—Sie gingen in der Stadt, und er hierher kam. Können Sie mir ſagen, ob der Brief geht heute noch ab? Iſt dieſes das Land, welches Schönheit Jedermann lobt? Wir waren nicht zu Hauſe, wenn er abreiſ'te.

12. Translate into German:—

The Britons, the Danes and the Saxons (have) possessed England in olden times. Spring, summer, autumn and winter are the four seasons. Many rivers divide themselves into several branches, before they fall into the sea. *What do we* (how does one) call the trees the leaves of which are always green? The South of Africa is much colder than the North, because *the latter* (this one) lies nearer to (an) the *torrid* (hot) zone. Not every good action finds its reward in this life. The peasant played with his children, while he was resting from *his* (the) work. Pray, fetch me the book which I have left on the round table in my room. The parents hardly knew their son again, when he returned from his long journey. Most Asiatics are heathens. We reached the village only after midnight. Read your letter [out] to me.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, APRIL 18TH:—AFTERNOON, 2 to 5.

GERMAN.

## SENIOR CLASS.

*Examiner*.....C. F. A. MARKGRAF, M.A.

I. Translate into German:—

The temples of the old nations were very often most splendid buildings. The prince renounced his claims to the crown in favour of his brother. The stranger looked into my face without speaking a word. On the other side of the wood, above the mill, *there* stands a small cottage. They avoided that village, though it lay *in* (on) their way. These two pictures are ours and that one is yours. Along the houses of this street *there* are young trees planted. While the new house was being built, the family lived at n friend's house. My rich neighbor's only son has died. The Cologne and (the) Frankfort newspapers are very much read. I was just going to write to you when your letter arrived. Since his childhood he has been living in the country. Every one listened attentively to (auf) the speaker, consequently (a) deep silence reigned in the assembly.

II. Translate from Schiller: „Jungfrau von Orleans":—

Act I., Scene IX., Pages 84 to 85; and

Act. II., Scene V., Page 107.

III. Grammar.

1. Ich hatte belohnt; du hältst; wir erzögen; ihr werdet entschuldigen; er tritt; umhauen (Infin.); ich vergäße; sie werden erfunden haben; es traf; ich rufe; sie boten an.—Parse, and give the tenses of the *Passive* voice corresponding with, the forms of verbs mentioned above.

2. Mention *a.* some *reflective* and *impersonal* verbs which govern the Genitive; *b.* some *transitive* verbs which govern the Accusative in ordinary, and the Genitive in poetical language. Add short examples to *a* and *b*.

3. Explain the various constructions of which the verbs warten, harren, sprechen and sagen are susceptible.

4. Write down the prefixes of those compound verbs, which are partly *separable*, partly *inseparable*. Instance two such verbs, and show the difference in their accentuation and meaning when used *a.* separably, *b.* inseparably.

5. When, and with what verbs, is the Infinitive used in German instead of the Past Participle as in English? Give two examples.

6. Express the Imperative in the following sentences by the Past Participle :—Continue ! Do not stop ! Answer quickly ! Do not tarry ! Pay attention ! Be silent ! Remain here !

7. Form *causative* verbs from hangen, neigen, ſchwimmen, ſitzen, ſpringen, trinken, wachen, biegen, ſtehen.

8. Translate and parse the following sentence :— Wenn es mir gelänge, die Einwilligung Derer zu erlangen, von deren Willen Alles abhängt, ſo ſollte es bald anders hier ausſehen.

IV. Literature.

1. How far back can you trace the oldest written document of the German language ? What does it consist in, and who is named as the author of it ?

2. What date may be assigned for the composition of the 'Nibelungenlied', and who is the supposed author of it ? What is its subject, and to what time and localities does it relate ? What is its metrical form ?

3. How do you account for the flourishing state of Mediæval poetry during the Suabian age ? State what dialect was then chiefly made use of as a written language, and give the names of some of the most famous "Minnesænger."

4. Why is Opitz called the father of modern German poetry ?

5. To what school did the writers belong, who are designated as the "precursors of the classical period" ? Mention the most prominent amongst them.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1873.

THURSDAY, APRIL 17TH :—2 TO 5 P.M.

### HEBREW.

### JUNIOR CLASS.

*Examiner*, .....REV. A. DE SOLA, LL.D.

1. Translate Genesis, ch. VII, first twelve verses.

2. Give the rules for the Definite Article, its exceptions, and prefix to the article, the prepositions בכלם, in full and contracted forms.

3. Add to the noun סוס the proper terminations for the pl. masc., pl. fem. and dual.

4. Write the personal pronouns, in both numbers and genders, in their absolute form.

5. Attach the pronominal fragments, sing and pl., to the noun עיר.

6. Give a description of the *Segholates* that will include all the forms adduced by the old grammarians and Gesenius.

7. Include in another general description, the numerous forms of masc. sing. nouns not included in the *Segholates;* and state the general principles which govern the formation of their construct case.

8. Give the terminations of nouns sing. fem. in the absolute and construct forms; add to a noun, an adjective, in both sing. and pl. numbers, with definite article.

9. Write out the regular verb למר in all moods and tenses in the קל form.

10. Describe ו conversive and consecutive, and give the rules for its punctuation.

11. Translate into Hebrew: The great and good man, the shining light, the greatest of all Hebrew and Semitic scholars in our time, the wise and discerning (one) Julius Fuerst, the glory of our generation, died last month. Alas! (אוי נא לנו) the crown has fallen (נפלה) from our head.

12. Translate into English :—

המ/ך קנה הבית הגדול האיש טוב וגם הילדה טובה הארץ אשר מכר המלך טובה ביתי גדולה ובני קטן עירך גדולה ועירי קטנה גם אבי גם אמי היו בנן האנשים והנשים אשר היו בעיר אחותי היתה עם אחותך אשר בביתך :

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATION, 1873.

THURSDAY, APRIL 17TH:—2 TO 5 P.M.

### HEBREW.

### SENIOR CLASS.

*Examiner*,..... REV. A. DE SOLA, LL.D.

1. Write the verb למד in the Niphal and Piel forms.

2. Translate literally Psalm xxii, from verse 10 to verse 32.

3. Analyze verses 8 to 15, and explain, in verse 1, אילת השחר.

4. Give a classification of masculine nouns singular different from that exhibited in the paradigms of Gesenius, and show how the numerous classes cited by him, may be reduced to three. Give a full exposition of the principles by which this diminution of numbers is attained.

5. Explain the main characteristics of irregular verbs; show how the punctuation of prefixes is affected by a guttural being the first letter of the root; and show by examples the use of *Dagesh* compensatory.

6. Write the noun קול singular and plural numbers, with the pronominal fragments attached, both numbers and genders.

7. Write out a regular verb in all the seven conjugations.

8. Give the rules affecting adjectives and nouns when in connection with each other; illustrate by examples.

9. Give the views of Gesenius respecting ו consecutive; explain ו conversive, and exhibit, by examples, the changes of punctuation to which it is liable.

10. Translate into Hebrew:

11. Our fathers trusted in Him, and He delivered them. He is a worm and no man, a reproach of men, and despised of the people; those who see him, laugh him to scorn. They gaped upon me with their mouths as ravening and roaring lions. But He will save me from the lion's mouth; when I cry, He will hear.

12. Translate into English:

איש אחד קנה את כל הבתים האלה למה לא קנה אביך את חבתים
האלה למה לקחתם את הספרים האלה מיד האיש הזה כל בניו טובים
על כן אהבתי אתם שתי שנים ישבנו בעיר הזאת ואתם הלכתם אל
ארצכם:

# McGILL COLLEGE, MONTREAL.

## STEWART PRIZE IN HEBREW, 1873.

### TRANSLATION.

THURSDAY, APRIL 24TH:—9 A.M. TO 12.

*Examiner*,.....REV. A. DE SOLA, LL.D.

1. Translate literally Psalms II, III and IV.

2. Analyze thoroughly as follows:—

In Ps. II., verse 5, אלימו and יבהלמו; in verse 7 explain especially אספרה אל חק

In Ps. III, show the difference between מזמור and שיר; in verse 3, explain ישועתה, and analyze fully verses 4, 5, 6, and 7.

In Ps. IV, vs. 2, analyze בקראי and הרחבת; analyse also verses 6, 8, and 9.

3. Translate Genesis, chapters III, first half of ch. VII, second half of chapter VIII.

4. Analyze in chap. III, first three verses, noticing especially ערום in chap. VI, verses 9, 11, 12; in chap. VII, verses 17, 18, 19; in chap. VIII, verses 1, 2, 3.

5. Translate Habakuk, from chapter II, vs. 18, to the end of the Book.

6. Analyze, with critical remarks, in chap. II, verses 5, 6, 7, 8; and in chap. III, from vs. 16 to end of chapter.

7. Translate and point:—

על משמרתי אעמדה ואתיצבה על מצור ואצפה לראות מה ידבר בי ומה אשיב על
תוכחתי ויעננני יי ויאמר כתוב חזון ובאר על הלחות למען ירוץ קורא בו כי עוד חזון
למועד ויפח לקץ ולא יכזב אם יתמהמה חכה לו כי בא יבא לא יאחר הנה עפלה לא ישרה
נפשו בו וצדיק באמונתו יחיה:

8. Translate into Hebrew:—

His splendor was like a bright luminary, casting its rays around, and there was the residence of his omnipotence. Pestilence preceded him; consuming lightning went in his train. He stood—the earth trembled: he beheld—and nations were dispersed; the eternal mountains were broken asunder, the perpetual hills did vacillate, when the Everlasting went forth.

# McGILL COLLEGE, MONTREAL.

## STEWART PRIZE IN HEBREW, 1873.

### GRAMMAR.

FRIDAY, APRIL 25TH:—9 A.M. TO 12.

*Examiner*, . . . . . REV. A. DE SOLA, LL.D.

1. Write out a regular verb in all the forms.

2. Give the rules for adjectives in connection with nouns, and show how the degrees of comparison are expressed.

3. Write the personal pronouns in their absolute forms, and attach the pronominal fragments in both numbers to a noun, also in both numbers.

4. Conjugate a verb פ״נ *e.g.* נתן in the *Kal* and *Niphal* forms.

5. Describe Segholates; give one general description which will apply to all the various forms of these nouns given by Gesenius, and show how the greater number of the masculine nouns cited by him, may be included under another general description.

6. Give the rules for *Sheva*, *Metheg*, *Makkaph*, *Dagesh*, *Mappik*.

7. Explain mutable and immutable vowels; changes of consonants; doubling of consonants; peculiarities of the gutturals, especially as affecting *Sheva* and *Dagesh;* aspiration and its removal, and the rise of new vowels and syllables.

8. Conjugate the verb סבב in *Kal*, *Niphal*, *Hiphil* and *Hophal* forms.

9. Describe the Hebrew accounts; their uses as signs of the tone and as signs of interpunction; give a list of the chief disjunctives and connectives, and describe מלעיל and מלרע.

10. Conjugate the verb נלה in the *Kal* and *Niphal* forms, and the verb ישב in the *Niphal* and *Hiphil* forms.

11. Give the rules for the definite article; the interrogative ה; the formation of the plural of both masculine and feminine nouns; the dual, and the construct case of nouns ending in ה with *Kamets*.

12. Conjugate the verb לקח in the *Kal* and נגש in the *Niphal* forms.

13. Give such main rules of syntax and prosody as may occur to you; describe paralellism and other principal features of Hebrew poetry.

# McGILL UNIVERSITY, MONTREAL.

## INTERMEDIATE EXAMINATION, 1873.

WEDNESDAY, APRIL 16TH :—9 A.M. TO 12 NOON.

## BOTANY.

*Examiner*.... .....J. W. DAWSON, LL.D., F.R.S.

1. State the difference between Determinate and Indeterminate Inflorescence, with examples.

2. State the structure and function of the Pollen grain and the mode of its production.

3. Name the different forms of Indehiscent Fruits and describe one.

4. Describe the structure of the Seed, and state the distinction between Albuminous and Exalbuminous Seeds.

5. Describe the reproductive organs of *Lycopodium* and *Equisetum*.

8. Divide the Vegetable Kingdom into Classes, and state their characters, with examples.

7. Explain the terms, *Epigynous*, *Amphitropous*, *Gymnospermous*, and describe the structures to which they are applied.

8. In what natural families of plants do we find Tetradynamous Stamens; Samaras; Ringent and Masked Corollas.

9. Describe any Canadian family of Monopetalous Exogens, with examples.

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10. Describe the specimens exhibited (Nos. 1 to 5), and state what you know of their Botanical relations.

# McGILL COLLEGE, MONTREAL,

SESSSONAL EXAMINATIONS, 1873.

WEDNESDAY, APRIL 16TH:—9 A.M. TO 12 NOON.

ZOOLOGY.

## THIRD YEAR.

*Examiner*, .....J. W. DAWSON, LL.D., F.R.S.

1. Describe the test of an *Echinus*, and the organs connected with it.

2. Describe the anatomy of *Mytilus* or *Unio*.

3. Describe the organs in the head of an Insect, with their modifications in the principal types.

4. Indicate the structural differences between Amphibia, Reptilia and Aves.

5. Indicate in tabular form the classes and orders to which the following genera belong: *Terebratula*, *Serpula*, *Cyanea*, *Tubularia*, *Ursus*, *Amoeba*, *Nautilus*, *Homarus*.

6. State the characters and classification of the *Scolecida*, with examples.

7. State the characters of the class *Anthozoa*, and describe one of the orders, with Canadian examples.

8. State the characters of the class *Gasteropoda*, with examples.

9. Describe minutely the anatomy of *Uraster*, or *Hirudo*.

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10. State what you know of the structure and classification of the animals exhibited (Nos. 1 to 10).

# McGILL UNIVERSITY, MONTREAL.

## B.A. ORDINARY EXAMINATION, 1873.

WEDNESDAY, APRIL 10TH :—MORNING, 9 TO 12.

### GEOLOGY.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. State the mineral character and general distribution of the Lower Laurentian in Canada.

2. Name in chronological order the Palæozoic formations, and give a detailed account of one of them as developed in Canada.

3. Describe the Keuper and Lias, and state their geological relations.

4. Explain the nature and origin of slaty structure.

5. Explain denudation, and some of the results which it produces in horizontal and inclined strata.

6. In what formations do the following fossils occur :— *Orthis*, *Eozoon*, *Paradoxides*, *Productus*, *Zaphrentis*, *Trigonia*, *Belemnites*, *Sivatherium*.

7. State the leading genera of the Flora of the Carboniferous System, and describe one.

8. State fully the mode of occurrence and origin of mineral veins.

9. State the subdivisions of the Mesozoic in England, the Eocene in France and the Post-pliocene in Canada.

10. State the grounds and mode of proceeding, for ascertaining the relative ages of stratified rocks.

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11. State the Geological and Zoological or Botanical relations of the Fossils exhibited (Nos. 1 to 10).

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN GEOLOGY AND NATURAL HISTORY, 1873.

(FIRST PAPER.)

### MINERALOGY.

WEDNESDAY, APRIL 2ND :—9 A.M and 2 P.M.

*Examiner*, .....J. W. DAWSON, LL.D., F.R.S.

1. What are the more important chemical, physical and geological relations of Pyroxene and Hornblende.

2. Describe some of the principal Hydrous Silicates of Magnesia.

3. What are the distinctive characters of Calcite and Arragonite, of Pyrite and Chalcopyrite, and of Tin ore and Blende.

4. Mention the more important Minerals containing Fluorine, Chromium, and Boracic Acid, and describe fully one of them.

5. Name and describe the Sulphides of Lead, Mercury and Silver.

6. State the cases in which Hardness and Crystalline Form may be best employed in determining Minerals. Give some examples.

7. State the chemical and crystallographic differences of the Felspars, and their geological relations.

8. Describe chemically the more important Minerals of Barium and Strontium.

9. State the composition of Orthoclase, Chlorite and Garnet, and explain their occurrence in metamorphic rocks.

10. Describe the mode of occurrence and geological relations of Gold, Coal and Gypsum.

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11. *Specimens No.* 1 *to No.* 10.—State their physical characters, and your conclusions as to the nature and composition of the Minerals.

# McGILL UNIVERSITY, MONTREAL.

## B.A. HONOUR EXAMINATIONS IN GEOLOGY AND NATURAL HISTORY, 1873.

(SECOND PAPER.)

### LITHOLOGY AND PHYSICAL GEOLOGY.

MONDAY, APRIL 14TH:—9 A.M. TO 12; AND 2 TO 5 P.M

*Examiner*, ..... J. W. DAWSON, LL.D., F.R.S.

1. What are the principal Acidic Rocks in the Plutonic Series? Deseribe one.

2. State in tabular form the composition and classification of the following Rocks:—Quartzite, Diorite, Syenite, Trachyte, Elvanite, Chlorite Schist.

3. What are the facts to be observed and inferences to be deduced in the case of unconformable superposition and inclined faults?

4. Explain the indications of Mineral veins and the modes of tracing them.

5. State the use of Mineral characters in identifying beds in distant localities and the reasons of the limitation of their use.

6. Describe the modes of occurrence and lithological associations of Graphite.

7. Explain concretionary structures, and give examples.

8. Illustrate the difficulties which arise from contortions of strata combined with denudation.

9. State the modes of occurrence of compounds of Iron in rocks and constituents of rocks.

10. Describe the phenomena of Igneous Dykes.

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11. Describe fully the specimens exhibited (Nos. 1 to 10), stating their Geological and Economical Relations.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN GEOLOGY AND NATURAL HISTORY, 1873.

(THIRD PAPER.)

### GEOLOGY AND PALÆONTOLOGY.

TUESDAY, APRIL 22ND :—9 A. M. TO 12; AND 2 TO 5 P.M.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. The Laurentian and Huronian Systems—what are their structure and geographical distribution in North America, their useful minerals and the formations in other countries chronologically parallel to them ?

2. Give in a tabular form the series of Upper Silurian rocks in Eastern America, with their European equivalents, and describe one of the formations, naming some of its fossils.

3. Describe the Carboniferous system, with some of its characteristic fossil plants, and its distribution in America and Great Britain.

4. Describe the following formations, and state their geological position —Oriskany, Corniferous Limestone, Millstone Grit, Copper Slate.

5. What formations in Canada would be indicated by the prevalence of the following genera—*Phyllograpsus*, *Trinucleus*, *Leptaena*, *Stigmaria*, *Pentamerus*, *Spirifer*, *Petraia*.

6. Describe the Quebec group of Canada, and state what are its geological equivalents.

7. How are the Menevian and Caradoc of England represented in Eastern America. Describe the formations.

8. Enumerate the characteristic fossils of the Black River Limestone.

9. What are the European equivalents of the Hamilton Group and Trenton Limestone, and by what fossils distinguished.

10. Explain the distribution and origin of Clay Ironstones.

11. What are the geological relations of Gold in British America.

12. What are the special mineral and palæontological features of the Salina and Galt Formations.

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11. Describe the specimens exhibited (Nos. 1 to 10) with reference to their names, zoological or botanical characters and geological distribution.

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN GEOLOGY AND NATURAL HISTORY, 1895.

(Third Paper.)

### GEOLOGY AND PALÆONTOLOGY.

Tuesday, April 23rd—9 A.M. to 12; and 2 to 5 P.M.

Examiner.....J. W. Dawson, LL.D., F.R.S.

1. The Laurentian and Huronian Systems—what are their structure and geographical distribution in North America, their useful minerals and the formations in other countries chronologically parallel to them?

2. Give in a tabular form the series of Upper Silurian rocks in Eastern America, with their fossils specifically, and describe one of the formations, naming some of its fossils.

3. Describe the Devonian system, with some of its characteristic fossil plants, and its distribution in America and Great Britain.

4. Describe the following formations, and state their geological position—Oriskany, Corniferous Limestone, Millstone Grit, Coupe Sleta.

5. What formations in Canada would be indicated by the prevalence of the following genera—Trilobites, Graptolites, Goniatites, Calamites, Sigillaria, Lepidodendron, Dendrodon?

6. Describe the Quebec group of Canada, and state what are its geological equivalents.

7. How are the Mesozoic and Cenozoic of England represented in Eastern America. Describe the formations.

8. Enumerate the characteristic fossils of the Black River Limestone.

9. What are the European equivalents of the Hamilton Group and Trenton Limestone, and by what fossils distinguished.

10. Explain the distribution and origin of Clay Ironstones.

11. What are the geological relations of Gold in British America.

12. What are the special mineral and palæontological features of the Salina and Utah Formations.

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13. Describe the specimens exhibited (Nos. 1 to 10) with reference to their names, zoological or botanical characters and geological distribution.

# McGILL UNIVERSITY, MONTREAL,

## B. A. HONOUR EXAMINATIONS IN GEOLOGY AND NATURAL HISTORY, 1873.

MONDAY, APRIL 28TH :—9 A.M.; AND 2 TO 5 P.M.

(FOURTH PAPER.)

### GEOLOGY.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. Explain the absence of the Permian in Canada, in connection with the observed relations of the Carboniferous and Triassic.

2. Describe the formations of the earlier part of the Mesozoic in Europe and America, with their useful minerals and characteristic fossils.

3. Give an account of the subdivisions and distribution of the Eocene and Miocene Tertiary in Eastern America, and mention some fossil genera peculiar to America.

4. Explain fully the supposed mode of formation of White Chalk and of Glauconite deposits.

5. State the subdivisions of the Jurassic system in Western Europe, and the characteristic genera of fossils.

6. Explain the structure, fossils and geological age of the Lias, Calcaire Grossier, London Clay, and Coralline Crag.

7. Describe the Boulder Clay, and explain the theories as to its formation.

8. To what Geological Formations do the following fossils belong :—*Nummulites*, *Microlestes*, *Pentacrinus*, *Placodus*, *Hemicidaris*, *Ventriculites Voltzia*.—Describe one of them.

9. State what is known of the Mesozoic rocks of British Columbia.

10. What is the distribution of the Tertiary deposits in the plains East of the Rocky Mountains?

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11. Describe the specimens exhibited (Nos. 1 to 10), with reference to their classification and geological distribution.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

SESSIONAL EXAMINATIONS, 1873.

SATURDAY, APRIL 5TH:—MORNING, 9 TO 12.

LINEAR DRAWING AND PROJECTION.

## FIRST YEAR.

*Examiner*,.....G. F. ARMSTRONG, M.A.,C.E.

1. Construct a diagonal scale of inches, tenths and hundredths.

2. Inscribe an octagon in a square of 2 inches side.

3. In an equilateral triangle of 2.15 inches side place three equal circles, touching each other and the sides of the triangle.

4. Describe a Hypocycloid, the directing and generating circles being of 2.5 inches 1.33 inches radius respectively.
How would the form of the curve be modified if the two circles were of equal radii?

5. Construct a rectangle that shall be equal in area to an equilateral triangle of 3 inch side.

6. Draw the plan and elevation of a thin rod 3 inches long that makes angles of 75° and 30° respectively with vertical and horizontal planes.

7. Give plan and elevation of a Cube of 2.25 inch edge when standing on one of its solid angles and having its axis at 65° to the horizontal, and 30° to the vertical plane.

8. Required the true shape of the section of a square prism of 1.25 inch base and 2.75 inches high, made by a plane entering at one angle of the top and emerging at the opposite angle of the base.

NOTE.—The scale in question (1) is to be used for all dimensions.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

SESSIONAL EXAMINATIONS, 1873.

SATURDAY, APRIL 5TH:—MORNING, 9 TO 12.

PROJECTION AND PERSPECTIVE.

## SECOND YEAR,

*Examiner*,..... .....G. F. ARMSTRONG, M.A., C.E.

1. Show the horizontal and vertical projections of a regular pentagonal sheet of metal of 1.25 inch side when resting on one angle, and having its surface at 60° to the horizontal, and the line joining the angle on which it rests and the middle of the opposite side, at 40° to the vertical plane.

2. Give plan and elevation of a speed pully composed of three solid circular wheels of a half, one, and one and a half inch radius respectively, and of a uniform thickness of half an inch. The pulley stands with its diameter vertical, and the surface of the wheels makes an angle of 35° with the vertical plane of projection.

3. A right cone, whose base is 2.5 inch diameter and height 4 inches, is cut by a plane that makes an angle of 30° with the axis at a point 2.5 inches from the base Exhibit the Section.

4. Draw a V— threaded screw, 4 inches long, 1.75 inch diameter and .5 inch pitch.

5. Construct an isometrical scale of $\frac{1}{10}$ inch to a foot and, taking your dimensions from it, put into isometrical projection a rectangular block of buildings having a courtyard in the centre and a square tower at one angle. This yard is 50 feet long and 30 feet wide, the buildings forming its sides are 18 feet deep and 25 feet high, and the tower, 18 feet square, rises to a height of 40 feet.

6. Explain and illustrate the properties of the "centre of vision" as applied to perspective projection.

7. Put into perspective a perpendicular cross, having equal arms 3 feet long and 9 inches square, 3 feet on the left of the spectator, a similar distance within the picture, and perpendicular to its plane.

8. Draw a cube of 4 feet edge; one face being at 30° to the plane of the picture, and 2 feet on the right of the spectator.

NOTE.—In the last two questions the height of the eye is to be assumed as 5 feet 6 inches, and the picture distance as 12 feet.
Scale $\frac{1}{2}$ inch to one foot.

# McGILL UNIVERSITY, MONTREAL.

B.A. Sc. EXAMINATION, 1873.

(ENGINEERING COURSE.)

SATURDAY, APRIL 5TH :—MORNING, 9 TO 12.

PERSPECTIVE.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Explain generally, and illustrate the principles of a system of oblique perspective.

2. Show that all lines that are parellel to each other in an object vanish in the same point.

3. What is the use of the " moveable base line ?"

4. A square pillar of 3 feet side, and 6 feet high stands symetrically upon a square plinth 6 feet by 2 feet. One side of the plinth makes an angle of 40° with the picture plane at a point 2 feet 6 inches on the left of the spectator.

5. A triangular pyramid whose basal edges are each 3 feet long, and whose height is 7 feet, is 5 feet within the picture on the right of the spectator, and one of its basal edges makes an angle of 75° with the plane of the picture.

6. Repeat question (4) when, instead of the object being square, it is octagonal and the edge of the plinth 3 feet within the picture ; the octagons being such as can be inscribed in the respective squares.

7. A circular column, 2 feet diameter and 6 feet high, stands on a square slab 1 foot thick, the edges of which are tangential to the circumference of the column. On the top is placed another and similar slab with its angles perpendicularly over the middle points of the sides of the lower one. The position of the object is immediately in front of the spectator, and a side of the lower slab is parallel to the picture plane.

8. A semicircular arch of 8 feet span, is 4 feet deep and one foot thick at the crown. It is supported on piers 1 foot thick, andthey are 9 feet high to the spinging. The object is placed 2 feet on the left of the spectator and 3 feet within the picture, the depth of the arch being parallel to the picture plane.

NOTE.—In the foregoing questions the height of the eye is to be assumed as 5 feet 6 inches, and picture distance as 9 feet.

Scale ½ inch to one foot.

# McGILL UNIVERSITY, MONTREAL.

BA. SC. EXAMINATION, 1873.

*(MINING COURSE.)*

SATURDAY, APRIL 5TH:—AFTERNOON, 2 TO 5.

## MINERAL SURVEYING AND DRAWING.

*Examiners*, ..... { G. F. ARMSTRONG, M.A., C.E.
B. J. HARRINGTON, B.A., Ph. D.

1. Describe fully the construction and use of the instrument figured in the accompanying picture.

2. A coal seam has an inclination of 45° ; at what depth will a pit reach it if sunk at a distance (horizontal) of 1000 yards from the outcrop, supposing the pit's mouth to be 50 yards lower than the outcrop ?

3. How is the Theodlite used in making a survey under ground, and what superiority does it possess as compared with the instrument usually employed in mineral surveys ?

4. With what methods of connecting the underground work with the surface survey are you acquainted ? Describe each fully.

5. Draw on a scale of $\frac{1}{20}$ in. to a yard a plan illustrating the working of a coal mine by the "post and stall" method.

6. Combine the accompanying plan and sections, and project them isometrically on a scale of $\frac{1}{10}$ in. to a foot, so as to show the whole in one figure. Indicate the various strata by means of appropriate colours, and letter by the side of each, its name and depth as in the sketch.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

SESSIONAL EXAMINATIONS, 1873.

SATURDAY, APRIL 5TH:—AFTERNOON, 2 TO 5.

### SURVEYING.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Give some methods of carrying on the chaining of an obstructed line without the use of an angular instrument.

2. Describe the Circumferenter and its mode of use. In what respects does it differ from the Prismatic Compass?

3. What is "compass variation," and how does its existence affect a survey?

A line AB bears N. 85° 17' W.; variation being 24° W.; what is the true bearing of AB?

4. Certain omissions can be supplied, and errors rectified in a survey made with the compass. Enumerate these, and state the principle upon which such corrections are effected.

5. Give an account of the most important points to be observed in carrying out a large trigonometrical survey, and show how a Base may be extended and checked.

6. How would you ascertain if a Box Sextant is correctly graduated.

7. What are the permanent adjustments of the Theodolite, and how are they made? Mention any differences in the case of the Transit Theodolite.

8. Explain "satellite-station," "arc of excess," "base of verification," "vernier," "traverse-table."

NOTE.—In addition to this Paper an actual Survey was made, and plotted.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

### SESSIONAL EXAMINATIONS, 1879.

SATURDAY, APRIL 5TH—AFTERNOON, 2 TO 5.

SURVEYING.

Examiner,.....G. F. ANGSTROM, M.A., C.E.

1. Give some methods of carrying on the chaining of an obstructed line without the use of an angular instrument.

2. Describe the Circumferentor and its mode of use. In what respects does it differ from the Prismatic Compass?

3. What is "compass variation," and how does its existence affect a survey?

4. A line AB bears N. 45° 15' W.: calculate being 24° W.; what is the true bearing of AB?

5. Certain omissions can be supplied, and errors rectified in a survey made with the compass. Enumerate these, and state the principle upon which such corrections are effected.

6. Give an account of the most important points to be observed in carrying out a large trigonometrical survey, and show how a base may be extended and checked.

7. How would you ascertain if a box Sextant is correctly graduated.

8. What are the permanent adjustments of the Theodolite, and how are they made? Mention any differences in the case of the Transit Theodolite.

9. Explain "satellite-station," "arc of excess," "base of verification," "reverse," "traverse-table."

NOTE.—In addition to this Paper an actual Survey was made, and plotted.

# McGILL UNIVERSITY, MONTREAL.

BA. SC. EXAMINATION, 1873.

*(ENGINEERING COURSE.)*

SATURDAY, APRIL 5TH :—AFTERNOON, 2 TO 5.

PRACTICAL MECHANICS.

*Examner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Prove the Parallelogram of Forces for the direction of the resultant in the case of any two forces that are incommensurable.

2. Two parallel forces act in the same direction along the opposite sides AB, DC of a parallelogram, and another force acts along the diagonal BD. If these forces be respectively proportional to AB, DC and BD ; determine the magnitude and position of a fourth force that will keep the parallelogram at rest.

3. Determine the conditions of equilibrium of any system of forces acting in the same plane.

A uniform lever, whose arms, of lengths $2a$ and $2b$, are at right angles to each other, touches the circumference of a circle, whose plane is vertical, and radius $c$. Find the inclination of the arm $2a$ to the horizon.

4. Define "a couple," and shew that no change in its effect will arise from supposing it to act anywhere in its original plane.

A B C is an equilateral triangle whose sides are each 10 ft. long ; a force P acts from A to B, another equal force from B to C, and a third, also equal to P, from C to A. These three forces are equivalent to a couple whose moment is $5 P \sqrt{3}$

5. What is the property of the "centre of a system of parallel forces," and what bearing has it upon the solution of the following problem?

It is required to determine the expenditure of work made in the transfer of the material of a railway excavation of considerable length, so as to form an embankment at some distance.

6. What are the "Properties of Guldinus"?

Find the surface and volume of the College cupola, assuming the half width of the base to be 6 feet, and the height and the radius of the generating circle to be each 7 feet.

7. State the laws of Friction.

A cubical box is half filled with water and placed upon a rough rectangular board ; if the board be slowly inclined to the horizon determine whether the box will slide down or topple over.

8. A capstan weighs 600 lbs. and turns on a conical pivot whose angle of convergence is 90°, and radius 1 inch. Determine the mechanical effect consumed by the friction of the pivot in 24 revolutions, the co-efficient of friction being ·1.

9. What is the "line of resistance" in a dam or retaining wall?

What must be the thickness of a uniform brick wall 40 feet high that supports a mass of earth level with its top, so that it is just on the point of being overturned; the ratio of the specific gravity of the brickwork and earth being as 2·2 to 1·9.

10. What is the best form for the teeth of wheels, and why?

A wheel with $x$ teeth drives another with $y$, and the first makes 20 revolutions per minute; show that the other will make $\frac{20\,x}{y}$ in the same time.

11. What is the function of a Buttress?

A roof weighs 12 lbs. per square foot; its pitch is 30° and span 32 ft. What is the thrust on each rafter when 6 ft. apart?

12. What is the property of the "Centre of Gyration?"

A lock gate is 18 feet high and 11 feet wide, and weighs 30 lbs. per square foot. Find its moment of inertia about one of its longer edges.

13. Distinguish between "impressed" and "effective forces."

Two weights of 5 lbs. and 3 lbs. hang over a fixed pulley whose weight s 12 oz.; find the time of either weight moving through 30 feet.

14. Define "Centre of Percussion," and explain its importance in the construction of some machines.

A square of uniform boiler plate is capable of motion about one side; find where it must be struck, perpendicular to its surface, in order that there may be no jar on its axis of motion.

# McGILL UNIVERSITY, MONTREAL.

BA. SC. EXAMINATION, 1873.

*(ENGINEERING COURSE.)*

WEDNESDAY, APRIL 9TH :—MORNING, 2 TO 5.

## CONSTRUCTION.

(COMMON ROADS.)

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Before tracing the line of a new road, what preliminary information should you think it needful to collect?

2. What general considerations would influence you in deciding upon the best route for a road to connect two given points?

3. How would you deal with a deep valley crossing your chosen line of route?

4. In a hilly country what importance has the question of the aspect to be given to a road, and why?

5. Name the qualities that a road should possess, in order to fulfil the condition of least expenditure of work in the transit of loads over it, and give reasons for your answer.

6. Discuss the rival systems of road making as advocated by Telford and McAdam.

7. Explain the importance of a proper system of drainage, and give some account of the best method of providing the same, mentioning any cases that you think require particular attention.

8. Specify for a first class mail-road, similar to those constructed in England by Mr. Telford, and state when you would deem it necessary to pave any portion of the surface.

9. Write a description of the general character of the masonry suitable for the incidental works on a line of road, and give, illustrative of your answer, a specification for a 5 feet cross-drain.

10. Describe fully the construction of a plank-road, and state when such a form may be advantageously employed.

NOTE.—Answers should be concise, and, as far as possible, illustrated by drawings.

# McGILL UNIVERSITY, MONTREAL.

BA. SC. EXAMINATION, 1873.

*(ENGINEERING COURSE.)*

WEDNESDAY, APRIL 9TH:—AFTERNOON, 2 TO 5.

## CONSTRUCTION.

(GIRDER BRIDGES.)

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. What previous knowledge is necessary in designing an iron structure? State, also, how uniform stress may be said to be the condition of a perfect structure.

2. Compare modern practice in girder work with that of the older engineers.

3. Exhibit a graphic method, applicable to any number of forces, of determining the supporting forces in the case of a vertically loaded beam.

4. Define "shearing force" and "bending moment," and describe an experiment by means of which the forces acting at a section of a loaded beam may be demonstrated.

5. What is the strongest form of beam, and why?

6. What do you understand by the "limiting span" of bridges? Give examples.

7. Supposing the cross section of a boom, in the case of a plate girder, to have been designed, exhibit an easy graphic method of obtaining the entire longitudinal section.

8. What function do the T-irons, frequently added to the web of a plate girder, perform.

9. How is the stress on the bars of a braced girder distributed? Show how its intensity may be determined in the Warren truss.

10. Determine, as far as necessary, the stress, on web and booms, of a single-plate girder, the following assumptions being made.

Clear span = 50 feet.
Effective " = 53 feet.
Total length = 56 feet.
Effective depth = $\frac{1}{13}$ of span (say, $3\frac{1}{2}$ feet)
Width of booms = $\frac{1}{40}$ " " (say, $1\frac{1}{4}$ foot)
Live load = $\frac{3}{4}$ ton per foot run
Limits of tensile stress = 5 tons per square inch.
" " Compressive stress = 4 tons per square inch.

NOTE.—Answers should be concise, and, as far as possible, illustrated by drawings.

# McGILL UNIVERSITY, MONTREAL.

## Ba. Sc. EXAMINATION, 1873.

## (ENGINEERING COURSE.)

MONDAY, APRIL 21ST :—MORNING, 9 TO 12.

### PRINCIPLES OF MECHANISM.

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. With what means of communicating motion are you acquainted? Illustrate your answer by examples.

2. Show that the expression, $a$ (1-Cos $\theta$), may be taken to represent the fundamental form in the conversion of circular into reciprocating motion.

3. Describe the construction and mode of action of Napier's invention, for the communicating of motion to the frisket frame of the printing press.

4. Discuss the nature of the motion obtained from the crank-axle and connecting rod, and point out its bearing upon the work done by a direct action steam engine.

5. Explain the principle upon which combinations of counting-wheels are constructed.

6. Exhibit Tredgold's method of determining the form of the teeth of bevilwheels.

7. How did Watt employ the principle of the pantograph in the solution of the problem of parallel motion?

8. What do you understand by the " value " of a train of wheels? Give an example.

9. Describe Watt's indicator, and its mode of action.

10. Two equal ellipses centered on opposite foci will roll together.

11. Describe Hook's joint, and show that it may be employed to communicate uniform motion to two parallel axes whose directions nearly coincide.

12. Explain the following :—" Velocity-ratio"—" Cam,"—" Spindle"—" Swash-plate"—" Pitch-circle."

# McGILL UNIVERSITY, MONTREAL.

BA. SC. EXAMINATION, 1873.

*(ENGINEERING COURSE.)*

MONDAY, APRIL 21ST:—AFTERNOON, 2 TO 5.

## CONSTRUCTION.

(GENERAL PAPER.)

*Examiner*,.....G. F. ARMSTRONG, M.A., C.E.

1. Demonstrate the general condition of the stability of an arch.

2. Explain fully the nature and use of "curves of adjustment" as applied to the setting out of permanent way.

3. At what angles of obliquity may skew bridges be most safely constructed, and why?

4. Into how many classes may canals be divided, and how would you determine the most suitable form and dimensions of the water-way in any particular case?

5. It is required to set out, by means of the Theodolite, a curve of 60 chain radius that shall touch two given straight lines, the intersection of which is inaccessible.

6. What considerations enter into the question of the power exerted by a locomotive engine working upon a railway?

7. Give concisely an account of the operation of setting out a tunnel.

8. It is required to draw the development of the soffit, and of its vertical sections, of an oblique semi-circular arch, whose span is 33 feet and angle of skew 50°, on a scale of $\frac{1}{4}$ inch to 1 foot.

9. Suppose that you found, in designing a canal, the employment of a flight of locks unavoidable. Would you build them single or double? Enter fully into the reasons that influence your answer.

10. Demonstrate the method of the setting out of circular curves by continued offsets, and explain what is meant by a "two degree curve."

11. Discuss the properties of the Hydrostatic-arch, and point out their application in determining the question of the stability of certain structures.

12. Show how to determine the necessary amount of "cant" to be given to a rail on a curve, and state, also, what you know of the respective methods of McAdam and Fairlie of adapting vehicles to the passage of curves.

McGILL UNIVERSITY, MONTREAL.

B.A. Sc. EXAMINATION, 1875.

(ENGINEERING COURSE.)

Monday, April 5th, 2 to 5.

CONSTRUCTION.

(GENERAL PAPER.)

Examiner.....C. P. Armstrong, I.A., C.E.

1. Demonstrate the general condition of the stability of an arch.

2. Explain fully the nature and use of "curve of adjustment" as applied to the setting out of permanent way.

3. At what angles of obliquity may skew bridges be most safely constructed, and why?

4. Into how many classes may canals be divided, and how would you determine the most suitable form and dimensions of the water-way in any particular case?

5. It is required to set out, by means of the Theodolite, a curve of 60 chains radius that shall touch two given straight lines, the intersection of which is inaccessible.

6. What considerations enter into the question of the power exerted by a locomotive engine working upon a railway?

7. Give concisely an account of the operation of setting out a tunnel.

8. It is required to draw the development of the soffit, and of its vertical sections, of an oblique semi-circular arch, whose span is 33 feet and angle of skew 30°, on a scale of 1 inch to 1 foot.

9. Suppose that you found, in designing a canal, the employment of a flight of locks unavoidable. Would you build them single or double? Enter fully into the reasons that influence your answer.

10. Demonstrate the method of the setting out of circular curves by continued offsets, and explain what is meant by a "two-degree curve."

11. Discuss the properties of the Hyperbolic-arch, and point out their application in determining the question of the stability of arcular structures.

12. Show how to determine the necessary amount of "ease" to be given to a rail on a curve, and state, also, what you know of the respective methods of McAdam and Telford of adapting vehicles to the passage of curves.

# McGILL UNIVERSITY, MONTREAL.

## Ba. Sc. EXAMINATION, 1873.

*(ENGINEERING COURSE.)*

WEDNESDAY, APRIL 23RD :—10 A.M. TO 4 P.M.

## DESIGNS AND ESTIMATES.

*Examiner,*.....G. F. ARMSTRONG, M.A., C.E.

A design, specification, and bill of quantities, together with such detailed drawings as would be necessary in the execution of the work, is required for each of the following structures :

1. A wrought iron single—plate girder, span 50 feet and depth 3½ feet between the centres of gravity of the booms, the stresses being:

| | BENDING. | SHEARING. |
|---|---|---|
| At Centre ..... ..... | 95.5 tons. | 4.75 tons. |
| 10 feet from centre ..... | 80.0 " | 13.50 " |
| 20 " "..... ..... | 34.4 " | 21.81 " |
| At Abutment ..... ..... | 0 " | 27.00 " |

2. A public road bridge over a railway in 25 feet cutting, slopes 1½ to 1, width between parapets 26 feet ; materials—brick, with face voussoirs and quoins of rock ashlar, string course, coping and impost of tooled ashlar.

3. A building of brick with open timber roof, and suitably lighted, adapted for a College workshop, with an engine house and superintendent's office attached. Dimensions :—Main building 40 feet by 18 feet, each of the smaller 9 feet by 12 feet, common height 10½ feet from floor to wall plate.

4. A trussed timber bridge to carry a 4 ft. 8½ in. gauge railway, on which 35 ton engines are used, over a canal of 40 feet water way, running on the level and having a tow path 12 feet on either side.

# McGILL UNIVERSITY, MONTREAL.

## Ba. Sc. EXAMINATION, 1873.

*(MINING COURSE.)*

WEDNESDAY, APRIL 9TH:—MORNING, 9 TO 12.

### MINING AND ORE-DRESSING.

*Examiner*,.....B. J. HARRINGTON, B.A., Ph. D.

1. Describe fully the different parts of any of the principal forms of boring apparatus.

2. How is hoisting generally effected in the Cornish mines, and what is the approximate cost per ton of ore raised from depths of 150 to 250 fathoms?

3. Describe the "timbering" of a level, and the "tubbing" of a shaft with wood.

4. Describe the "long-wall" method of working a coal seam, stating the advantages or disadvantages which you consider it to possess as compared with "post-and-stall" work.

5. What are the three kinds of resistance retarding the movement of a 'tub", and how are they most effectually diminished?

6. Describe any two forms of safety-cage.

7. Explain the construction of Mueseler's safety-lamp and Biram's anemometer, stating how the volume of air passing through a mine can be determined with the latter.

8. Explain the following terms:—Cleat, creep, chock, brattice, plunger and snore-piece.

9. Describe the different parts of a "battery."

10. What are nature and uses of "swinging riddles" and "trommels"?

11. What do you understand by "ragging", "spalling", and "cobbing"

# McGILL UNIVERSITY, MONTREAL.

BA. SC. EXAMINATION, 1873.

*(MINING COURSE.)*

WEDNESDAY, APRIL 9TH:—AFTERNOON, 2 TO 5.

METALLURGY.

*Examiner*.....B. J. HARRINGTON, B.A., Ph. D.

1. Describe the Siemens-Martin process for the manufacture of steel.

2. Describe fully the English copper-smelting process.

3. What is the most important ore of lead, and how is it smelted?

4. Describe Pattinson's process for desilverising lead.

5. Explain the construction of the German cupellation furnace, stating in what respect it differs from the English.

6. What are the theories of onnenschmidt and Bowring with regard to the chemical changes which take place in the *Patio* process.

7. Give a method for the extraction of the silver from argentiferous copper-matts.

8. State what you know about the ores and metallurgical products exhibited.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

*(MINING COURSE.)*

SESSIONAL EXAMINATIONS, 1873.

WEDNESDAY, APRIL 23RD:—MORNING, 9 TO 12.

### USE OF THE BLOWPIPE.

*Examiner*,.....B. J. HARRINGTON, B.A., Ph. D.

1. What are the most important blowpipe reagents, and what are their special uses?

2. Name the Oxides which give the most characteristic coatings on charcoal, describing the coating in each case.

3. What is the cause of decrepitation? Give examples of minerals which decrepitate.

4. What is the nature of the sublimate produced when mispickel is heated in a colored tube?

5. What minerals constitute the ordinary scales of hardness and fusibility?

6. Give the blowpipe reactions, characterizing the following minerals:

| | |
|---|---|
| Cerusite, | Barite, |
| Chalybite, | Chalcopyrite, |
| Molybdenite, | Dolomite. |

8. Give special methods for the detection of Lithia, Boracic Acid, Phosphoric Acid, Sulphur and Fluorine.

8. What are the blowpipe reactions of the minerals exhibited?

Determination of minerals in the afternoon from 2 to 2.

# McGILL COLLEGE, MONTREAL.

## DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

*(MINING COURSE.)*

SESSIONAL EXAMINATIONS, 1873.

MONDAY, APRIL 21ST:—MORNING, 9 TO 12.

ASSAYING.

## SECOND YEAR.

*Examiner*,.....B. J. HARRINGTON, B.A., Ph. D.

1. What are the nature and uses of "Black Flux" and "White Flux?"

2. In making fire assays, by what general principles must you be guided in the choice and proportions of your fluxes?

3. Give a method of assay for ores of mercury.

4. Describe the Swedish assay for copper ores, naming any metals which interfere with the process.

5. How can you determine the amount of gold in auriferous pyrites?

6. Upon what does the value of a Peat for fuel depend, and how is it determined in the laboratory?

7. Give the details of Levol's antimony assay.

8. Describe fully the methods of assay which you would employ for the ores exhibited.

Assaying in the laboratory in the afternoon, from 2 to 6.

# McGILL COLLEGE, MONTREAL.

## Faculty of Arts.

SESSIONAL EXAMINATIONS, 1873.

WEDNESDAY, APRIL 16TH:—AFTERNOON, 2 TO 5.

ELEMENTARY CHEMISTRY.

## FIRST YEAR.

*Examiner*,.....B. J. HARRINGTON, B.A., PH.D.

1. Explain the construction of the Bunsen burner.

2. How is chlorine prepared, and what are its properties?

3. Describe the preparation of Hydric Phosphide.

4. How is the decomposition of insoluble Silicates effected.

5. Describe the preparation of Potassium. Give also the properties and uses of its principal salts.

6. How is Cuprie Oxide prepared, and what is its principal use in the laboratory.

7. What is the composition of the principal ores of Iron, and how are they reduced?

8. State what you know about the following compoun s —$Ca H_2 O_2$, Ag Cl, Au $Cl_3$ and HCn.

9. Explain some of the methods by which the atomic weights of the elements have been ascertained.

10. Describe the construction and use of the Spectroscope.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

MONDAY, 17TH MARCH :—AFTERNOON, 4 TO 6.

ROMAN LAW.

## FIRST YEAR.

*Examiner*,.....C. A. GEOFFRION, B.C.L.

1. En combien de périodes divise-t-on l'histoire du Droit Romain ; expliquez les évènements politiques et constitutionnels qui distinguent ces diverses périodes ?

2. Quelles ont été les principales sources du droit depuis la fondation de Rome jusqu'à Justinien, et définissez ce qu'il faut entendre par *lex*, *senatus consultum*, *plebiscitum* et les autres sources du droit que vous avez à énumérer ?

3. Relatez les différentes tentatives de codifier les lois romaines faites avant Justinien ; ces codifications étaient-elles des compilations partielles ou de l'ensemble du Droit Romain ?

4. Donnez le nom de chacune des parties du *Corpus Juris Civilis*, l'ordre de date dans lequel elles ont été promulguées, et les principaux caractère distinctifs de chacune ?

5. Qu'entendez-vous par Droit naturel, Droit des gens, Droit civil ;—ce que l'on appelle de nos jours Droit public, Droit international, Droit administratif tombe-t-il sous les définitions données par Justinien des différentes divisions du Droit ?

6. Quels sont les objets du Droit. Qu'entend-on par personne : donnez les principales divisions des personnes fournies par les Institutes ?

7. Quelles étaient les personnes *sui juris* et *alieni juris ;* une personne *alieni juris* pouvait-elle être *pater familias* et à qui appartenait ce dernier titre ?

8. Quelle était l'étendue de la puissance paternelle à Rome ; qui pouvait exercer cette puissance ; de quelle manière était-elle dissoute ?

9. Expliquez ce qu'étaient l'*émancipation*, l'*adrogation* et l'*adoption :* quels en étaient les effets légaux ?

10. Qu'entend-on par *justæ nuptiæ* et *concubinatus ;* donnez la différence entre les deux : Qu'est-ce que le *jus connubii*—quelle différence à Rome faisait-on entre les enfants *naturales* et *vulgò concepti* ou *spurii ?*

11. Enumérez les différentes espèces de tutelles, et les différentes circonstances où elles avaient lieu. Donnez la distinction entre la tutelle et la curatelle pour les mineurs de 25 ans ?

12. Expliquez ce qu'étaient la grande, la moyenne et la petite diminution de tête—*maxima*, *media* et *minima capitis deminutio*.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, MARCH 21ST:—4 TO 6 P.M.

LEGAL LOGIC.

## FIRST YEAR.

*Examiner*, .....PROFESSOR GONZALVE DOUTRE, B.C.L.

LOGIQUE JUDICIAIRE.

1. Combien de choses doivent passer pour certaines?

2. En quoi le paradoxe diffère-t-il du sophisme?

3. Par quel argument appliquerez-vous à un cas non prévû, la règle établie pour un cas semblable?

4. Qu'entendez-vous par pétition de principes?

5. L'argument *ab exceptione ad regulam* peut-il recevoir son application lorsqu'il y a parité de raison entre les cas exceptés et ceux qui ne le sont pas, et dites pourquoi il le peut ou ne le peut pas?

5. Lorsque la loi est douteuse, à quel genre d'argument devez vous avoir recours?

7. Quel genre d'argument employez-vous pour ramener les mots à leur définition propre?

8. Si l'impossibilité peut devenir une cause de non existence d'obligation, démontrez-le par un argument légal.

9. Comment raisonnez-vous d'un cas au cas contraire?

10. Est-ce plus la signification propre et naturelle que le sens donné par l'usage le plus général, qui doit servir à interprêter les termes d'une convention? De quel argument vous servirez-vous pour développer cette proposition?

11. Par quel argument étendrez-vous la loi d'un cas qu'elle a prévu à un autre cas sur lequel elle a gardé le silence?

12. Si vous voulez démontrer que celui qui a droit de donner son bien, a aussi droit de le vendre et de l'aliéner, quel argument emploierez-vous?

LEGAL LOGIC.

1. How many things are considered as certain?

2. In what respects does a paradox differ from a sophism?

3. By what argument would you apply to a case not foreseen the rule established for a similar case?

4. What do you understand by a "*Petitio principii?*"

5. Is the argument from the exception to the rule admissable when there is a parity of reason between the cases excepted and those not excepted, and say why it is, or is not, so admissible?

6. When the law is doubtful, to what kind of argument would you resort?

7. What kind of argument would you employ to bring words to their proper definition?

8. If impossibility may become a cause of the non-existence of an obligation, demonstrate it by a legal argument?

9. How do you reason from one case to a contrary case?

10. Is it rather the proper and natural signification than the signification given by the most general usage which ought to serve for the interpretation of the terms of a contract? What argument would you employ to develope this proposition?

11. By what argument would you extend the law, from a case which it has foreseen, to another case upon which it is silent?

12. If yon wished to shew that he who has the right of giving away his property has also the right of selling and of alienating it, what argumen would you employ?

# McGILL COLLEGE, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

WEDNESDAY, MARCH 19TH:—4 to 6, P. M.

COMMERCIAL LAW.

## FIRST YEAR.

*Examiner*,..... PROFESSOR WURTELE.

OBLIGATIONS.

1. Define an obligation, and state from what sources they arise?

Définissez ce que c'est qu'une obligation, et mentionnez les sources dont elles peuvent naître?

2. What is a Contract; and state and explain the principal division of Contracts?

Qu'est-ce qu'un Contrat; et énumérez et expliquez les divisions principales des Contrats?

3. What is lesion; and by whom and against what contracts can it be invoked?

Qu'est-ce que la lésion; et par qui et contre quels contrats peut-elle être invoquée?

4. Explain the term fraud; and when fraud is a cause of nullity in a contract, and when it only entitles the injured party to reparation in damages?

Qu'entend-on par dol; et expliquez quand le dol est une cause de nullité dans les contrats, et quand il donne lieu seulement à des dommages en faveur de la partie trompée?

5. What things and acts cannot be the object of a contract?

Quelles choses et quels faits ne peuvent être l'objet d'un contrat?

6. What is the effect of a contract transferring property; and explain the effect of two contracts made successively by a party with respect to a move able with two different persons, where the last is put in possession?

Quel est l'effet d'un contrat translatif; et expliquez l'effet de deux contrats faits successivement par une partie avec deux personnes différentes, quand la dernière est mise en possession?

7. What is a quasi-contract; and explain the difference with respect to a person incapable of contracting between a contract and a quasi-contract?

Qu'est qu'un quasi-contrat; et expliquez la différence qu'il y a entre un contrat et un quasi-contrat à l'égard d'une personne incapable de contracter?

8. What difference is there between the responsibility of a father for his children and that of a master for his servants while at work.

Quelle est la différence entre la responsabillité d'un père pour ses enfants et celle d'un maître pour ses domestiques pendant qu'ils travaillent ?

9. What are the rights of the creditor in case of a breach of contract ?

Quels sont les droits du créancier en cas de contravention au contrat ?

10. What exceptions may, and what may not a joint and several debtor plead ?

Quelles sont les exceptions qu'un débiteur solidaire peut, et quelles sont celles qu'il ne peut pas plaider ?

11. What is the difference between a joint and several obligation and an indivisible one ?

Quelle est la différence entre une obligation solidaire et une obligation indivisible ?

12. What is a penal clause ; and when can the creditor enforce both obligations ?

Qu'est-ce qu'une clause pénale ; et quand le créancier peut-il en même temps poursuivre l'exécution des deux obligations ?

# McGILL COLLEGE, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

THURSDAY, MARCH 6TH :—4 TO 6 P.M.; 6 TO 7 P.M. FOR MEDAL EXAMINATION.

CIVIL CODE.

## FIRST YEAR.

*Examiner*,..... PROFESSOR LAFLAMME.

1. Qu'est-ce que la mort civile et quels en sont les effets?

2. Que doit contenir l'acte du mariage?

3. Qu'est-ce que l'absence? quand et de quelle manière s'obtient la possession provisoire et la possession définitive?

4. Quels sont les effets de l'absence relativement au mariage?

5. Quels sont les conditions requises pour pouvoir contracter mariage?

6. Quels sont les devoirs et les obligations qui naissent du mariage?

7. Qu'est-ce que la séparation de corps? pour quelles causes peut-on la demander et quelles sont les formalités requises pour l'obtenir?

8. Qu'est-ce que la tutelle et quelles sont les formalités requises pour la conférer?

9. Qu'est-ce que le subrogé tuteur et quelles sont ses fonctions?

10. Quelles sont les causes qui dispensent de la tutelle.

11. Qu'est-ce qu'une corporation. Comment les corporations sont-elles constituées et comment se divisent-elles?

12. Quelles sont les incapacités des corporations?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

TUESDAY, MARCH 11TH:—4 TO 6, P.M.

LEGAL HISTORY.

### FIRST YEAR.

*Examiner*, .....PROFESSOR LAFRENAYE.

1. Quelles sont les sources du droit civil en cette Province ?
   What are the sources of the French civil law in this Province ?
2. Donnez une liste des lois civiles par lesquelles nous sommes régis ?
   Give a list of the civil laws by which our civil rights are governed.
3. Quelle était la différence entre les pays coutumiers et les pays de droit écrit sous l'ancien droit français ?
   What was the difference between the customary country "*pays coutumiers*" and the written law country "pays de droit *écrit*," under the old laws of France ?
4. Quelle était la coutume en force en cette Province avant notre Code Civil et comment y avait-elle été introduite ?
   What was the custom in force in this Province before our Civil Code, and how had it been introduced ?
5. Comment les ordonnances des Rois de France devenaient-elles en force et indiquez-en les formalités ?
   How did the French king's ordonnances become in force, and state by what formalities ?
6. De quel parlement suivons-nous la Jurisprudence de l'ancien droit et pour quelle raison ?
   Of what Parliament do we follow the jurisprudence of the old law, and for what reason ?
7. Qu'entendez-vous par un *arrêt de règlement ?*
   What do you understand by an *arrêt de règlement ?*
8. Quelle est l'ordonnance qui a été enrégistrée au Conseil Supérieur de Québec ?
   What is the ordonnance which was registered in the Superior Council, " Conseil Supérieur" of Quebec.
9. Qu'entendez-vous par cette partie de la loi Romaine "*unde vir et uxor*" introduite dans la jurisprudence française ?
   What do you understand by that portion of the Roman law "*unde vir et uxor*" introduced in the French jurisprudence ?
10. Qu'entendez-vous par la loi Romaine "*Barbarius Philippus*" ?
    What do you understand by the Roman law "*Barbarius Philippus*"?
11. Quels sont les Writs de Prérogatives de la couronne ?
    What are the Writs of Prerogatives ?
12. Quelles sont les lois en cette Province qui règlent la manière de faire les Testaments en cette Province ?
    By what laws are last wills and testaments to be made in this Province ?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

MONDAY, MARCH 17TH:—AFTERNOON, 4 TO 6 P.M.

ROMAN LAW.

## FIRST YEAR.

1. Into how many periods is the history of Roman Law divided? Explain the political and constitutional events which distinguish these different periods.

2. What were the principal sources of law from the foundation of Rome until Justinian? and define what is to be understood by Lex, senatus-consultum, plebiscitum, and the other sources of Law that you have to enumerate?

3. Point out the different attempts to codify the Roman laws made before Justinian; were these codifications, compilations of parts or of the whole body of the Roman law?

4. Give the name of each of the component parts of the Corpus Juris Civilis, the order of date in which they were promulgated, and the principal distinguishing characteristic of each.

5. What do you understand by jus naturale, jus gentium, jus civile; and does what is now called Public Law, International Law and Administrative Law fall under the definitions given by Justinian of the different divisions of the law?

6. What are the objects of the law. What is understood by PERSON? Give the principal divisions of persons furnished by the Institutes.

7. What were person sui juris, and alieni juris; could a person alien, juris be a Pater familias, and to whom did this latter title belong?

8. What was the extent of power of the Pater familias at Rome; who could exercise this power, and in what manner was it dissolved?

9. Explain emancipation, adrogation and adoption, and what were their legal effects?

10. What do you understand by justae nuptiæ and concubinatu. Give the difference between the two. What is the jus connubii? What difference was made at Rome between children *naturales and vulgo concepti or spurii?*

11. Point out the different kinds of tutorship, and the different circumstances under which they take place; give the distinction between tutorship and curatorship for minors of 25 years.

12. Explain what were the maxima, media, minima, capitis diminutio.

# McGILL UNIVERSITY, MONTREAL

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

MONDAY, MARCH 17TH :—AFTERNOON, 4 TO 6.

ROMAN LAW.

## SECOND YEAR.

*Examiner*,.....C. A. GEOFFRION, B.C.L.

1. Définissez ce qu'on entend par choses communes, publiques, qui n'appartiennent à personne, et donnez des exemples de chaque espèce. De quelles manières les individus acquièrent-ils les choses, à part de l'aliénation conventionnelle?

2. Quels sont les attributs de la propriété; ces attributs peuvent-ils se diviser pour reposer sur différentes personnes?

3. Expliquez ce que l'on entend par servitudes urbaines et servitudes rurales; donnez les noms des principales servitudes de chaque espèce?

4. Donnez la différence entre l'usucapion et la prescription; dites de quelle manière chacune s'acquiert?

5. Faites l'historique des différentes manières de tester à Rome depuis sa fondation jusqu'à Justinien, et expliquez les formalités des testaments permis à l'époque de ce dernier?

6. Qu'est-ce que la faction active et passive de testament; était-il permis à d'autres qu'aux personnes *sui juris* de tester et pour quelle espèce de biens?

7. N'y avait-il pas certaines dispositions de rigueur à faire dans un testament relativement aux héritiers siens, *heredes sui*, dans le cas de *prætcrition* comment s'appelait la possession de biens accordée aux héritiers qui n'avaient pas été déshérités?

8. Outre l'exhérédation des héritiers siens, n'y avait-il pas une autre formalité intrinsèque au testament et qui en était la bâse même? à Rome, pouvait-on mourir partie testat et partie intestat?

9. Quelle différence établissez-vous entre un testament inutile, rompu et annulé, testamentum *inutile*, *ruptum*, *irritum*.

10. Qu'était-ce que la plainte d'inofficiosité et par qui pouvait-elle être portée?

11. Exposez succinctement le système des successions *ab intestato* à Rome; dites quels étaient les liens de parentés entre les *agnati* et les *cognati*?

12. Mentionnez quelques-unes des possessions de biens accordés par le, prêteurs à l'encontre des héritiers successibles suivant l'ordre des 12 Tables à d'autres héritiers plus proches par les liens du sang?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

MONDAY, MARCH 17TH :—4 TO 6, P.M.

ROMAN LAW.

### SECOND YEAR.

*Examiner*,..... C. A. GEOFFRION, B.C.L.

1. Explain what is meant by res communes, res publicae, res nullius; and give examples of each kind. In what manners did individuals acquire things aside from conventional alienation?

2. What are the attributes of ownership? Can these attributes be divided and rest upon different persons?

3. Explain what is meant by urban servitudes and rural servitudes. Give the names of the principal servitudes of each kind?

4. Give the difference between usucapion and prescription, and point out in what manner each is acquired?

5. Give an account of the different manners of making a will at Rome, from its foundation until Justinian, and explain the formalities of testaments, permitted at the time of the latter?

6. What is the faction, active and passive, of a testament; was it permitted to others than to person sui juris, to dispose by will, and of what kinds of property?

7. Were there not certain dispositions, *de rigueur*, to be made in a testament concerning the testator's haeredes sui? In the case of *Praeteriti*, what was the possessio bonorum accorded to the heirs who had not been disinherited called?

8. Besides the exheraedation of the haeredes sui, was there not another formality essential to the testament, and which was its very foundation? Could one die at Rome partly testate and partly intestate.

9. What difference was there between a testamentum *inutile*, *ruptum*, *irritum?*

10. What *querela inofficiosi*, and by whom could it be made?

11. Point out succinctly the mode of succession ab intestato at Rome; say what were the bonds of relationship between the agnati and the cognati?

12. Mention some of the "*Possessiones bonorum*", granted by the prætors, in preference to heirs entitled to succeed according to the order of the tables, to other heirs more closely related by the ties of blood.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

TUESDAY, MARCH 11TH:—4 TO 6 P.M.

LEGAL BIBLIOGRAPHY.

## SECOND YEAR.

1. Quels sont les principaux commentateurs de la Coutume de Paris?
   Name the principal commentators on the Custom of Paris.
2. Quels sont les principaux commentateurs des ordonnances?
   Name the principal commentators on the ordonnances.
3. Quels sont les principaux arrêtistes du Parlement de Paris?
   Which are the best reporters of the decisions rendered by the Parlement de Paris.
4. Quels sont les meilleurs auteurs qui ont traité *ex professo*, sur les substitutions, sur les obligations, sur les ventes, et sur le louage?
   Name the best authors who have treated *ex professo* upon substitutions, obligations, sale and lease.
5. Quels sont les meilleurs auteurs à consulter sur les lois de la preuve tant dans le droit français que dans le droit anglais?
   Name the best authors to study the laws of evidence, as well for the French law as for English law.
6. Quels sont les meilleurs commentateurs du Code Napoléon que nous consultons, sur les parties de ce Code qui ont reproduit l'ancien droit français?
   Which are the best commentateurs on the Code Napoléon which are cited in Court upon those parts of the said Code which has reproduced the old French law?
7. Quelle est la rente constituée, et donnez une explication de cette rente?
   What is a constituted rent and give an explication of such a *rente*.
8. Quelle est la rente viagère; et expliquez cette *rente?*
   What is a life-rent, and give an explanation of such *rente*.
9. Quelle est la différence entre la caution conventionnelle, légale et judiciaire?
   What is the difference between a suretyship conventional, legal and judicial?
10. Quelle est la différence entre la caution simple et la caution solidaire?
    What is the difference between the surety liable only upon the default of the debtor and the surety who has bound himself jointly and severally with the debtor?
11. Qu'entendez-vous par le bénéfice de discussion et celui de division, en fait de cautionnement?
    What do you understand by the benefit of discussion and division in suretyship?
12. Quelles sont les obligations et responsabilités de la caution légale et de la caution judiciaire?
    What are the obligations and responsibilities of the legal and judicial suretyship?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

FRIDAY, MARCH 21ST:—4 TO 6 P.M.

MEDICAL JURISPRUDENCE.

### SECOND YEAR.

*Examiner*,.....PROFESSOR GONZALVE DOUTRE, B.C.L.

MEDECINE LEGALE.

1. Quel rapport le Droit Civil et le Droit Criminel ont-ils avec la médecine légale?

2. Combien de sortes de folie reconnues par le droit anglais?

3. Qui est responsable du dommage causé par un insensé?

4. L'ivrogne est-il un insensé au point de vue tant du droit Civil que du droit Criminel, relativement à la responsabilité de ses actes et à la garde de sa personne?

5. Quelles causes donnent lieu à l'interdiction?

6. Les intervalles lucides peuvent-ils empêcher l'interdiction d'un insensé?

7. Qu'est-ce qui constitue l'infanticide en droit anglais et comment qualifiez-vous ce crime?

8. Faut-il que la femme soit enceinte pour qu'il y ait avortement, tant à son égard qu'à l'égard de ses complices?

9. Un criminel, devenu insensé pendant sa détention, a-t-il droit à être remis en liberté à l'expiration de sa peine?

10. De quelle nature est le contrat d'assurance sur la vie, et combien de personnes sont intéressées dans ce contrat?

11. Quelles sont les exigences de la loi pour rendre ce contrat valide, si la santé, la vie ou les accidents en sont l'objet?

12. Qu'entendez-vous par une enquête *post mortem*, et dans quels cas entraîne-t-elle une expertise médicale?

MEDICAL JURISPRUDENCE.

1. What relation exists between the Civil and Criminal law and Medical Jurisprudence?

2. How many sorts of insanity are recognized by the English law?

3. Who is responsible for damage caused a person *non compos mentis?*

4. Is an intoxicated person an insane from the point of view of the Civil as well as the Criminal law, relatively to his responsibility for his acts, and the safe-keeping of his person?

5. What causes give rise to interdiction?

6. Can the existence of lucid intervals hinder the interdiction of an insane?

7. What constitutes infanticide under the English law, and how do you qualify this crime?

8. Is it necessary that a woman should be enceinte, in order that there might be an abortion, as well in regard to herself as to her accomplices?

9. Has a criminal who has become insane during his imprisonment the right to be set at liberty on the expiration of his punishment?

10. What is the nature of a contract of life assurance, and how many persons are interested in this contract?

11. What are the requirements of the law to render this contract valid if health, life, or accidents, are the object of it?

12. What do you understand by a post mortem examination, and in what cases does in involve a medical investigation?

# McGILL COLLEGE, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

THURSDAY, MARCH 6TH :—4 TO 6 P.M. ; 6 TO 7 P.M. FOR MEDAL EXAMINATION.

CIVIL CODE.

## SECOND AND THIRD YEARS.

*Examiner*, .....PROFESSOR LAFLAMME.

1. Qu'est-ce qu'une donation entre vifs et quelles sont les personnes capables de donner ou de recevoir par donations entre vifs ?
2. Une donation entre vifs peut-elle être stipulée révocable ou réductible et la condition d'acquitter les dettes à venir rend-elle nulle la donation entre vifs ?
3. Qu'est-ce que la communauté et de quoi se compose-t-elle en actif et en passif ?
4. Quel est l'effet des clauses de réalisation et d'ameublissement dans un contrat de mariage ?
5. Quels sont les droits des conjoints sur les biens de la communauté pendant le mariage ?
6. Comment s'accepte la communauté et quel est l'effet de l'acceptation ?
7. Dans quel cas le mari ou ses héritiers doivent-ils récompense à la femme lors de la dissolution de la communauté ?
8. Qu'est-ce que la continuation de communauté et de quels biens se compose-t-elle ?
9. Comment se contracte le douaire et de quoi se compose le douaire contumier pour la femme et pour les enfants ?
10. Quells sont les obligations de la douairière ?
11. Comment la femme conserve-t-elle son douaire sur les biens de son mari ?
12. Quelles sont les exigences de la loi pour permettre à la femme de réclamer le douaire contnmier sur des biens aliénés par le mari ?

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QUESTIONS FOR MEDAL EXAMINATION.

1. Quand et comment la convention pour reprise de l'apport s'exerce-t-elle, et au profit de qui ?
2. Donnez les modifications introduites par la législation du Pays dans le régime de la communauté tel qu'établie par la coutume de Paris.
3. Comment la femme perd-t-elle son douaire ?
4. Quand s'ouvre le douaire ? pour la femme et pour les enfants ? Sous quelles conditions les enfants peuvent-ils réclamer le douaire ?
5. Quelles sont les réclamations que la femme et les enfants peuvent exercer pour la perte des biens sujets au douaire ?
6. Les donations entre vifs doivent-elles être enregistrées et quel est l'effet du défaut d'enrégistrement ?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

THURSDAY, MARCH 13TH:—4 TO 6 P.M.

INSURANCE, BOTTOMRY AND RESPONDENTIA.

### SECOND AND THIRD YEARS.

*Examiner*,.....PROFESSOR KERR.

1. Define the principal contracts of Insurance?

2. Give the rules relating to the transfer of Policies of Insurance?

3. What is the effect of misrepresentation or concealment upon a contract of Insurance.

4. What may be the objects insured under a policy of Marine Insurance?

5. In what cases can the premium of Marine Insurance be recovered back and under what conditions?

6. What effect on the contract of Marine Insurance is produced by a deviation?

7. Define Barratry.

8. What are the rules of contribution in cases of general average?

9. Under a policy of Fire Insurance what is the effect of an alteration in the premises insured?

10. What constitutes an insurable interest in Life Insurance?

11. What acts render void a contract of Life Insurance?

12. What is the difference between a Bottomry Bond and a Bond of of Bottomry and Respondentia?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

WEDNESDAY, MARCH 19TH:—4 TO 6 P.M.

COMMERCIAL LAW.

## SECOND AND THIRD YEARS.

*Examiner*,.....PROFESSOR WURTELE.

### MERCHANT SHIPPING.

### BATIMENTS MARCHANDS.

1. What laws govern ships in Lower Canada?

Quelles lois régissent les bâtiments ou vaisseaux dans le Bas-Canada?

2. Who can be owners of British or Canadian ships; how many persons can be registered as owners of a ship; and how is a ship divided into shares?

Quelles personnes peuvent être propriétaires de bâtiments anglais ou canadiens; quel nombre de personnes peut être enregistré comme propriétaires en même temps; et comment un bâtiment est-il divisé en parts?

3. How are ships conveyed, and what formalities are requisite to give full legal effect to transfers; explain the difference in the law in that respect between British ships and Colonial inland vessels?

Comment les bâtiments sont-ils transportés, et quelles sont les formalités requises pour donner plein effet légal aux transports; expliquez la différence dans la loi à cet égard entre les bâtiments anglais et les bâtiments coloniaux naviguant à l'intérieur?

4. How are ships mortgaged; what formalities are requisite; and what is the effect of the mortgage?

Comment les bâtiments sont-ils hypothéqués; quelles sont les formalités requises; et quel est l'effet de l'hypothèque?

5. How can security for advances be given on a ship while building; and what is the effect of such contract?

Comment peut-on donner des sûretés pour des avances sur un bâtiment en construction; et quel est l'effet de tel contrat?

6. What difference is there between a mortgage and a privilege or maritime lien; and state for what debts a privilege exists?

Quelle est la différence entre une hypothèque et le privilége ou gage maritime; et énumérez les créances pour lesquelles un privilége existe?

7. What is the extent of the authority of the master over the crew and passengers?

Quelles est l'étendue de l'autorité du maître sur l'equipage et les passagers?

8. When can the master borrow money on the credit of his owners; sell part of the cargo or sell the ship?

Quand le maître peut-il emprunter des deniers sur le crédit des propriétaires; vendre partie de la cargaison; ou vendre le bâtiment?

9. In what respect in contracts made for the ship is the master's position different from that of an ordinary mandatary?

En quoi la position du maître est-elle différente dans les contrats pour les besoins du bâtiment, de celle d'un mandataire ordinaire?

10. What is demurrage; who are liable for it; and how is it to be regulated?

Qu'est-ce que la surestarie; quels sont les personnes responsables pour son paiement; et comment est-elle réglée?

11. Under what possibilities may collisions arise; and state on whom the burden lies in the different cases?

Sous quelles circonstances les abordages peuvent-ils arriver; et expliquez qui doivent en chaque cas supporter les dommages?

12. What limitation of liability for loss or damage exists in favor of ship-owners?

Quelle restriction y a-t-il en faveur des propriétaires de bâtiments dans leur responsibilité pour pertes ou avaries?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

MONDAY, MARCH 17TH :— 4 TO 6 P.M.

## THIRD YEAR.

*Examiner*, .....C. A. GEOFFRION, B.C.L.

1. Give the distinctions between obligations re, verbis, and litteris, and cite examples of each.

2. What do you understand by mutuum and commodatum? Give the difference in their effects as to the conveyance of the property and the responsibility for the loss of the thing.

3. Define a quasi-contract, and a quasi-offence, and explain the obligations to which they may give rise.

4. Give a short account of the important modifications which have been introduced into our laws concerning the proof of obligations since the Conquest.

5. What difference do you establish between authentic writings and writings under private signature; and may the latter make as perfect proof as the former in certain cases?

6. What do you understand by recitative declarations in a writing, and what is their value as regards proof?

7. What is a contre-lettre? What is its use and its effect?

8. Point out what part of the Statute of frauds have been incorporated into our law, and explain its dispositions.

9. What persons are incompetent to be witnesses? Has the incompetence created by the Civil Code as regards husband and wife, for or against each other, been modified by our Provincial Legislature?

10. What do you understand by a commencement of proof in writing? Define legal presumptions, or those resulting from certain facts. Explain presumptions, juris and de jure, and give an example.

11. Explain some of the rules for the determination of the divisibility or indivisibility of a confession.

12. What is the discisory oath, or the supplitory oath? By whom and when can either of them be offered?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

CRIMINAL LAW.

## THIRD YEAR.

*Examiners*,..... { PROFESSOR CARTER, AND MR. ARCHIBALD.

1. What difference existed under the Roman Criminal Law, between the punishment for a larceny, when the thief was caught in the act, or if, on the other hand, he was discovered after considerable delay, and explain the reasons of such difference?

2. By what laws are we governed in criminal matters in Lower Canada, viewed in relation to the source of their authority?

3. What are the two great branches of the criminal law? Define each, and shew how they harmonize with each other.

4. Define a crime, and point out the distinction between a public wrong and a private injury.

5. Are there any exceptions to the principle "*Malitia supplet ætatem?*" and, if so, point out what they are.

6. What is the exact technical significance of the word *malice*, as used in criminal law?

7. Define the crime of larceny, and point out the exact distinction between it and the crime of obtaining goods under false pretences.

If A enters B's store, and asks for goods, which are delivered to him, and which he takes away without paying for, are there any cases in which this would amount to larceny, and, if so, explain upon what principle?

8. Define the crime of burglary, and show more particularly in what place a burglary may be committed, pointing out any change which has taken place in the law on that subject.

9. What is an indictment? and shew what things are requisite to its validity.

10. Give a short account of the duties and power of Justices of the Peace in relation to indictable offences.

11. Give a short account of the origin and development of the office now known as "Justice of the Peace."

12. Are there any crimes for which bail cannot be received? If so, what? Point out the different modes of obtaining bail in different cases.

13. In what cases does an appeal lie from a summary conviction of a Justice? To what Court? and how is such appeal tried?

14. Point out the principal differences between the remedies by appeal and certiorari.

15. What is a challenge to the array? For what causes can it be made? If the array should be quashed, as against the sheriff, what course should be pursued?

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* The first ten questions are for ordinary degree; the whole paper for medal examination.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1872-73.

FRIDAY, MARCH 21ST:—4 TO 6 P.M.

CIVIL PROCEDURE.

## THIRD YEAR.

*Examiner*,.....PROFESSOR GONZALVE DOUTRE, B.C.L.

PROCEDURE CIVILE.

1. Quelle différence faites-vous entre une action possessoire et une action pétitoire et ces deux actions peuvent-elles se joindre ?
2. Quelle similitude trouvez-vous entre l'intervention et la tierce opposition ?
3. Qu'entendez-vous par des offres réelles et quel genre de monnaie peut servir d'offres ?
4. Quelles sont les mesures provisionnelles et indiquez les cas où elles sont employées ?
5. Qu'est-ce qu'une reddition de compte, et dites ce qu'elle doit contenir et comment elle peut être obtenue et débattue ?
6. La séparation de corps entraîne-t-elle toujours la séparation de biens ?
7. Quels sont les brefs de prérogative relatifs aux Corporations et aux fonctions publiques ?
8. Quelle différence entre un Bref d'*Habeas Corpus* en matiére civile et un Bref d'*Habeas Corpus* en matiére criminelle ?
9. Quelle est la procédure pour authentiquer les registres de l'Etat Civil ?
10. Qu'est ce que le Compulsoire et quand et contre qui l'obtenez-vous ?
11. Comment, pourquoi et dans quel cas convoquez-vous unConseil de famille ?
12. Qu'entendez-vous par l'apposition et la levée de scellés ?

CIVIL PROCEDURE.

1. What difference is there between a possessory and a petitory action and can they be joined ?
2. What resemblance do you find between an intervention and a *tierce opposition* ?
3. What do you understand by a *legal tender*, and what kind of money can be used for that purpose ?
4. What are the provisional proceedings which accompany summons in certain cases, and point out the cases in which they are employed ?
5. What is a rendering of account, and point out what it should contain, and how it may be obtained and contested ?
6. Does separation from bed and board always involve separation of property ?
7. What are the prerogative writs relative to corporations and public offices ?
8. What difference is there between the writ of Habeas Corpus in civil matters, and the writ of Habeas Corpus in criminal matters ?
9. What is the procedure to authenticate the registers of civil status ?
10. What is a *compulsoire*, and when and against whom may it be obtained ?
11. How, why, and in what cases is a family council assembled ?
12. What do you understand by the affixing and the removal of seals ?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1873.

MONDAY, MARCH 7TH:—AFTERNOON, 4 TO 6 P.M.

ROMAN LAW.

## THIRD YEAR.

1. Donnez la distinction entre les obligations *re, verbis*, et litteris, et citez des exemples de chacune?

2. Qu'entend-on par *mutuum*, et par commodatum; donnez la différence dans leurs effets quant à la translation de propriété et de la responsabilité pour la perte de la chose?

3. Définissez le *quasi contrat* et le quasi délit, et expliquez les obligations auxquelles ils peuvent donner lieu?

4. Donnez un récit abrégé des modifications importantes qu'ont subi nos lois concernant la preuve des obligations depuis la conquête?

5. Quelle différence établissez-vous entre l'écrit authentique et l'écrit sous seing privé; ce dernier peut-il faire une preuve aussi certaine que le premier dans certains cas?

6. Qu'entend-on par déclarations énonciatives dans un écrit et quelle est leur portée en ce qui concerne la preuve?

7. Qu'est-ce qu'une contre lettre, quelle est son utilité et son effet?

8. Dites quelles parties du Statut des Fraudes ont été incorporées dans notre Droit, et expliquez-en les dispositions?

9. Quelles personnes sont incompétentes à être témoins; l'incompétence créée par le Code Civil pour les maris et femmes, les uns pour ou contre les autres, a-t-elle été modifiée par notre Législature Provinciale?

10. Que faut-il entendre par commencement de preuve par écrit; définissez les présomptions légales ou celles résultant de certains faits; expliquez ce qu'est la présumption *juris et de jure* et donnez-en un exemple?

11. Expliquez quelques-unes des règles servant à déterminer la divisibilité ou l'indivisibilité de l'aveu?

12. Qu'est-ce que le serment décisoire et le serment supplétoire; par qui et quand l'un ou l'autre peuvent-ils être déférés?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

SESSIONAL EXAMINATIONS, 1872-73.

TUESDAY, MARCH 11TH:—4 TO 6 P.M.

CIVIL CODE.

## THIRD YEAR.

1. Définissez le contrat de louage.
   Define the contract of lease.
2. Définissez le droit de gage du locateur sur les meubles du locataire?
   Define the privileged right of the lessor upon the moveable effects of the tenant.
3. Qu'entendez-vous par la tacite reconduction?
   What do you understand by tacit renewal.
4. Quand le bail a été fait par écrit, comment se termine-t-il?
   When the lease is written, how does the lease terminate?
5. Sous quel délai le locataire doit-il remettre au locateur la possession des lieux loués, après l'expiration du bail?
   Under what delay is the lessee bound to deliver the premises leased after the expiration of the lease.
6. Dans le cas de la résiliation du bail par la faute du locataire; à quelles responsabilités et obligations est-il tenu en loi pour les stipulations du bail?
   In case of ejectment or recision of the lease for the fault of the lessee, to what responsibilities and obligations is he held?
7. Expliquez quelle est la différence entre les priviléges et les hypothèques?
   Explain the difference between privileges and hypothecs.
8. Expliquez la constitution de l'hypothèque sur des immeubles possédés en franc et commun soccage, conforme à l'article 2041 du Code Civil?
   Explain the creation of hypothecs upon lands held in free and common soccage conformably to article 2041 of the Civil Code?
9. Quelles sont les dispositions du Code Civil sur l'hypothèque légale?
   What are the provisions of the Civil Code upon the legal hypothec?
10. Sur l'hypothèque judiciaire?
    Upon judicial hypothec.
11. Sur les hypothèques conventionnelles?
    Upon conventional hypothecs?
12. Quelles sont les personnes qui sont contraignables par corps?
    What persons are liable to imprisonment in Civil cases.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

### EXAMINATION FOR THE ELIZABETH TORRANCE GOLD MEDAL.

THURSDAY, MARCH 13TH, 1873:—6 TO 7 P.M.

*Examiner*,.....PROFESSOR KERR.

1. According to the principles of International Law, what is "Blockade"? What is the penalty for breaking a blockade?

2. In what does the sovereignty of a "State" consist?

3. What is the existing law on the subject of Commercial sales when the sum of money or value in question exceeds fifty dollars? Have any changes been effected by the Code Civil in the law as it existed previous to the year 1866? If yea, state the changes.

4. Where A contracts with B to sell B fifty tons of hay for a certain price, and A being unable to obtain a larger quantity tenders B forty nine tons, is such tender a fulfillment of A's obligation to deliver?

5. What is the difference between general and particular average?

6. What is jettison? How are the persons injured by jettison compensated for their losses?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

### EXAMINATION FOR THE ELIZABETH TORRANCE GOLD MEDAL, 1873.

WEDNESDAY, MARCH 19TH:—6 TO 7 P.M.

### COMMERCIAL LAW.

*Examiner*, .....PROFESSOR WURTELE.

### OBLIGATIONS.

1. Explain the difference between a conventional subrogation and the transfer of a debt.

Expliquez la différence entre la subrogation conventionnelle et le transport d'une créance.

2. What is the position of a debtor who accepts a transfer although his debt has been extinguished by compensation, with respect to the transferree; to the transferror; and to hypothecary creditors subsequent to the transferror?

Quelle est la position d'un débiteur qui accepte un transport malgré que sa dette soit éteinte par la compensation, à l'égard du cessionnaire; du cédant; et des créanciers hypothécaires postérieurs au cédant?

### BILLS OF EXCHANGE.
### LETTRES DE CHANGE.

3. What difference is there in the position of the holder of a bill transferred before, and the holder of a bill transferred after maturity?

Quelle différence y a-t-il dans la position du porteur d'une lettre de change transportée avant, et du porteur d'une lettre de change transportée après maturité?

4. What is the effect of default of protest, or of notice hereo't with respect to the various parties to a bill; and when is their want excused? Does the loss of a bill excuse the want of protest; and how can the holder of a lost bill proceed to recover payment?

Quel est l'effet de l'absence d'un protêt ou de l'avis d'un protêt à l'égard des différentes parties à une lettre de change; et quand y en a-t-il dispense? Est-ce que la perte d'une lettre de change peut dispenser du protêt; et comment le propriétaire d'une lettre de change perdue doit-il procéder pour en réclamer le paiement?

5. State the usual contents and covenants of a Charter-Party and of a Bill of Lading. What effect on the ownership of the goods has the transfer by endorsement of the bill of lading; and what force has a bill of lading in the hands of the consignee or endorsee against the master and owners?

Expliquez le contenu et les conditions ordinaires d'une charte-partie et d'un connaissement? Quel est l'effet quant à la propriété de la marchandise du transport par endossement du connaissement; et quelle est la force contre le maître ou les propriétaires du connaissement entre les mains du consignataire ou de son cessionnaire par endossement?

6. What is the duty of the master in case of wreck or of obstruction to he voyage? And what freight is due on goods saved from shipwreck?

Quel est le devoir du maître en cas de naufrage ou d'empêchement au voyage? Et quel frêt est dû sur des marchandises sauvée s du naufrage?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

### EXAMINATION FOR THE ELIZABETH TORRANCE GOLD MEDAL, 1873.

TUESDAY, MARCH 11TH:—6 TO 7 P.M.

*Examiner*,.....PROFESSOR LAFRENAYE.

1. Qu'entendez-vous par la contrainte par corps en matières civiles, au code civil?
What do you understand by imprisonment in civil cases in the Civil Code?

2. Expliquez l'*attachment for contempt* du droit anglais?
Explain the attachment for contempt of court of the English law?

3. Qu'entendez-vous par le jugement D'ITERATO contre certains contraignables par corps, contre les libellistes et dans les actions en dommages?
What do you understand by the judgment D'ITERATO against persons liable to imprisonment, against libellers, and in action of damages?

4. Expliquez les conséquences de la contrainte par corps contre le gardien et les dépositaires des deniers de justice.
Explain the consequences of the imprisonment against the guardian or depositary of moneys under judicial authority.

5. Quelles sont les conséquences de la contrainte par corps par suite de la *rébellion à justice*?
What are the consequences of the imprisonment in a civil case by the committing a *rébellion à justice*, that is to say, by preventing the seizure or sale of property in execution of a judgment?

6. Dans quel cas les femmes sont-elles contraignables par corps?
In what cases are females liable to imprisonment in civil cases?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

### EXAMINATION FOR THE ELIZABETH TORRANCE GOLD MEDAL, 1873.

MONDAY, MARCH, 17TH.

*Examiner*,.....C. A. GEOFFRION, B.C.L.

1. Explain how the influence of the Roman law made itself felt in a great number of European Legislations. Indicate the nations in which this influence manifested itself must powerfully and where the study of the Roman law has made the greatest progress?

2. Give a short resume of the principal dispositions of the twelve tables, and explain the modifications which civilization and legal science introduced into them up to the time of the codification of the Roman law by Justinian.

3. Show the extent of the different legislative powers at Rome, and what do you understand by leges, plebiscita, senatus consulta, principium placita edictum perpetuum, responsa prudentum, etc?

4. Give your ideas on the law of ownership at Rome, the dominium quiritum res, mancipia res et nec mancipi, usucapion and prescription.

5. Explain briefly the system of the Roman law on successions ab intestato and on the formation of the family, such as recognized by the Civil law as establishing the degrees of successions.

6. Make a comparison between the Canadian law and the Roman law with regard to their provisions, concerning testamentary successions and show the points of similarity and of difference.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Law.

EXAMINATION FOR THE ELIZABETH TORRANCE GOLD MEDAL, 1873.

MONDAY, MARCH 17TH :—6 TO 7 P.M.

*Examiner*.....C. A. GEOFFRION, B.C.L.

1. Expliquez comment l'influence du droit Romain se fait sentir dans un grand nombre de législations Européennes ; indiquez les nations chez qui cette influence se manifeste avec plus d'évidence et chez qui l'Etude du Droit Romain a le plus progressé?

2. Donnez un résumé succinct des dispositions principales des douze tables, et expliquez en même temps les modifications que la civilisation et la science légale leur ont fait subir jusqu'à la codification des lois Romaines par Justinien?

3o. Définissez l'étendue des divers pouvoirs législatifs à Rome et que faut-il entendre par : *leges, plebiscita, senatusconsulta, principum placita, edictum serpetuum, responsa prudentum*, &c.

4. Donnez quelques notions sur le droit de propriété à Rome, le domaine quiritaire, les choses *mancipi* et *nec mancipi, l'usucapion* et la prescription?

5. Expliquez brièvement le système du droit Romain sur les successions *ab intestato*, et sur la formation de la famille telle que reconnue par la loi civile comme établissant les degrés de successions?

6. Comparez le Droit Canadien au Droit Rumain dans leurs dispositions qui concernent les successions testamentaires ; et faites en voir les points d'analogie ou de différence.

# McGILL COLLEGE, MONTREAL.

## Faculty of Medicine.

SESSIONAL EXAMINATIONS, 1873.

SATURDAY, APRIL 8TH:—9 A.M.

ZOOLOGY.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S., &c.

1. Describe the parts of an *Echinus*.

2. Give the classification of the *Annelida*, with examples of the orders.

3. The *Foraminifera*.—Give their general characters, geological distinction, and agency as rock builders.

4. State the characters of the *Lamellibranchiata*, with examples.

5. Explain the primary subdivision of the animal kingdom into provinces, giving the characters of one of them in full.

6. Name the classes of the *Articulata*, and characterize two of them, with examples.

7. State the characters of the class *Anthozoa*, and describe one of the orders, with Canadian examples.

8. Refer to their place in the classification the following animals: Tape-worm, Ship-worm, Limpet, Cray-fish, Star-fish.

9. Describe the Specimens exhibited, referring them to their place in the system.

10. Describe minutely the anatomy of a Gasteropod.

# McGILL COLLEGE, MONTREAL.

## Faculty of Medicine.

SESSIONAL EXAMINATIONS, 1873.

SATURDAY, APRIL 8TH:—9 A.M.

BOTANY.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S., &c.

1. What are Prosenchymatous Structures as distinguished from Parenchyma? Give examples.

2. Describe the leading kinds of Vascular Tissue, and state their mode of formation.

3. Describe the structures in the blade of the leaf.

4. Explain the sources of the Carbon and Nitrogen of the plant.

5. Describe Root-fibrils, and state the distinction between a Root and a Rhizoma.

6. Explain Coalescence and Adnation of the parts of the flower, with examples.

7. Explain Fertilization in Phænogams, describing the parts concerned.

8. Describe the reproductive organs of Ferns.

9. Explain the terms Monœcious, Labiate, Didynamous, as applied to parts of the flower, and the modifications of parts by which these arrangements are produced.

10. Describe the Pericarp, stating its normal structure, and some of its modifications.

11. Explain the natural system in Botany, and state the gradation of groups, from the species upward, with examples.

12. State the distinction between Angiosperms and Gymnosperms.

13. State the characters of any Canadian Exogenous Order, with examples.

14. State what you know of the specimens exhibited.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., PRIMARY EXAMINATION, SESSION 1872-73.

THURSDAY, MARCH 20TH:—3 TO 4½ P.M.

### ANATOMY.

*Examiner*, ..... PROFESSOR W. E. SCOTT, M.D.

1. How is the Aorta divided? What are its relations and branches named according to its divisions?

2. What are the relations of the Inferior Vena Cava, its formative branches, and the veins opening into it?

3. Name the muscles attached to the Femur.

4. What nerves form the plexus situated upon the lower portion of the adductor longus muscle? and what nerve supplies the Tensor vaginæ femoris?

5. Describe the axillary space; give its shape, boundaries, contents and their relations.

6. What are the boundaries of the fourth ventricle of the brain? and where are the following canals situated: Sylvius, Petit, Fontana and Nuck?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., PRIMARY EXAMINATION, SESSION 1872-73.

THURSDAY, MARCH 20TH :—10 TO 11½ A.M.

MATERIA MEDICA.

*Examiner*,.....PROFESSOR WM. WRIGHT, M.D., L.R.C.S.E.

1. How are counter-irritants thought to act? Classify them, and mention the peculiarities of each group.

2. State the differences between Beberia and Beberiæ Sulphas in thei. modes of preparation, composition, appearances and utility.

3. Write out a short account of the leading kinds of Sarsaparilla.

4. Explain briefly the influence of opium on the principal systems, as the Nervous, Respiratory, etc., and the chief morbid states of each, in which, as a remedy, it would be indicated or contra-indicated.

5. What is Basilicon? What is Burgundy pitch? Name their preparations.

6. Give the doses of the following :—Aqua lauro-cerasi, Confec. Scammonii, Hydragyri Iodidum Rubrum, Infusum Digitalis, Liquor Arsenici hydrochloricus, Liquor Atropiæ sulphatis, Liquor Potassæ Carbonatis, Magnesiæ Sulphas, Oleum Cubebæ, Podophylli Resina, Syrupus Ferri Iodidi, Tinctura Belladonnæ, Tinctura Sennæ and Trochisci Morphiæ et Ipecacuanhæ; and state a few cases in which each might do good.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., PRIMARY EXAMINATION, SESSION 1872-73.

THURSDAY, MARCH 20TH, 1873:—11½ A.M., TO 1 P.M.

### CHEMISTRY.

*Examiner*, ..... PROFESSOR R. CRAIK, M.D.

1. Describe Dalton's atomic theory, and explain how elements are classified according to their atomicity.

2. Explain the law of equivalent proportions, and give examples to illustrate its operation.

3. State the quantities, by volume, of the respective elements present in *two volumes* of each of the following compounds, viz.: *Hydrochloric Acid*, *Vapour of Water*, *Ammonia*, and *Marsh Gas*.

4. How do the Halogens exist in nature? What are their chief chemical peculiarities, and by what common reaction are they separated from their compounds?

5. Describe the principal tests for *iron*, *copper*, and *lead*.

6. Explain the meaning of the terms, *compound radicle*, *saturated hydrocarbon*, *alcohol*, *haloid ether*, and *compound ether*, and write the formula for one of each.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., PRIMARY EXAMINATION, SESSION 1872-73.

THURSDAY, MARCH 20TH :—4½ TO 6 P.M.

INSTITUTES OF MEDICINE.

*Examiner*,..... PROFESSOR J. M. DRAKE, M.D.

1. Describe the common characters of cartilage. State its varieties and some of the localities in which each occurs.

2. How many descriptions of muscular fibre are there? State some of the situations in which each variety is found, also their microscopic appearances and the differences exhibited in their modes of action.

3. What are the recognized modes by which sensory and motive nerve fibres terminate peripherally?

4. What are the chief chemical and physical characters of the corpuscules of the blood?

5. What are the chief nitrogenized constituents of the urine? What is the average amount ef each secreted daily, and how may their presence be recognized? Explain the reaction by which ammonia is generated in decomposing urine.

6. What are the functions of the liver? What are the uses of the bile and what its chief constituents? In what particulars does the blood in the hepatic differ from that in the portal vein?

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., FINAL EXAMINATION.

Session 1872-73.

Saturday, 22nd March, 1873;—3 to 4½ p.m.

### SURGERY.

*Examiner*.Prof. George W. Campbell, A.M., M.D., L.R.C.S., Edinburgh, Dean of the Medical Faculty.

1. Give the causes, symptoms and treatment of the different forms of Gangrene.

2. Describe the different forms of dislocation of the Hip and the best methods of reduction.

3. How do you diagnose Benign from Malignant Tumors? In Scirrhus of the Breast what cases are suitable for operation, and under what circumstances should you decline operating?

4. Describe Carden's and Teal's amputations as applied to the Thigh. What are the advantages claimed for them over the ordinary flap and circular operations.

5. In what cases should Lithotrity be selected as the best operation for Calculus vesicæ. In the lateral operation of Lithotomy what parts must be divided and what accidents should be avoided during the operation.

6. Describe the symptoms and treatment of the different forms of Abscess.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., FINAL EXAMINATION.

SESSION 1872–73.

SATURDAY, MARCH 22nd, 1873 ;— 4½ to 6 p.m.

### MEDICAL JURISPRUDENCE.

*Examiner*..... .....PROF. GEORGE E. FENWICK, M.D.

1. In blows inflicted on the head, what symptoms would induce you to regard the injury as trivial, or serious, or one which would involve the life of the person injured?

2. Mention the various causes of "Impotence" as applied to the male, physical and mental?

3. What do you understand by the terms "Monorchide" and "Crypsorchide," are these conditions accompanied by sterility?

4. A dead body is found with a wound of the throat. What circumstances would induce you to regard it as a case of murder or suicide?

5. What is a poison? How do poisons produce their fatal effects, on what tissues do they act?

6. Mention the causes which modify the action of poisons.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M. FINAL EXAMINATION, SESSION 1872–3.

SATURDAY, MARCH 22ND :—10 TO 11½ A.M.

### THEORY AND PRACTICE OF MEDICINE.

*Examiner*, .....PROFESSOR R. P. HOWARD, M.D., &c.

1. Enumerate the chief points in the treatment of Scarlatinal Dropsy, of Acute Peritonitis, and of Dysentery.

2. What are the conditions productive of Ascites? Relate the diagnostic features of Cirrhosis and of Lardacious disease of the Liver.

3. What are the symptoms of Rickets? With what disturbance of the nervous system is it frequently associated? Sketch its treatment.

4. Describe the effects of Embolism of the Arteries, and of the Capillaries, and state the important pathological processes in which embolism plays a part.

5. Give a summary of the leading symptoms of Cerebro-Spinal Fever—and the treatment to be employed in it.

6. State the diagnostic considerations by which you would distinguish Simple Meningitis, Rheumatic Delirium, and Delirium Tremens, and detail the treatment of the last.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Medicine.

M.D., C.M., FINAL EXAMINATION, SESSION 1872-73.

SATURDAY, MARCH 22ND :—11½ A.M. TO 1 P.M.

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

*Examiner*,.....PROFESSOR D. C. MACCALLUM, M.D.

1. Under what conditions may Rupture of the Uterus take place ; by what symptoms is the accident accompanied, and what are the duties of the accoucheur ?

2. Describe the Graafian follicle and its contained ovule.

3. Mention the different kinds of Tumour that may obstruct delivery ; give their principal points of distinction, and the treatment demanded for each.

4. How would you distinguish a Placental presentation, and what means would you adopt under such circumstances, to accomplish the safe delivery of your patient ?

5. What changes take place in the abdomen as the result of Pregnancy, and how are they to be distinguished from similar changes produced by other causes.

6. Give the symptoms and treatment of Puerperal convulsions.

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